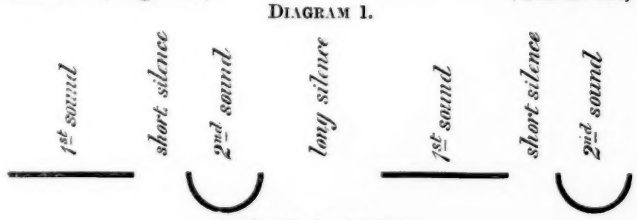
Lecture
ON THE
SO-CALLED PRESYSTOLIC MURMUR.

By W. HOWSHIP DICKINSON, M.D.,
HONORARY FELLOW OF CAIUS COLLEGE, CAMBRIDGE; SENIOR PHYSICIAN AND LECTURER ON MEDICINE, ST. GEORGE'S HOSPITAL; PRESIDENT OF THE PATHOLOGICAL SOCIETY.

GENTLEMEN,—You have probably noticed of late years occasional expressions of difference of opinion with regard to a cardiac murmur which some call presystolic, while others, who equally recognise it, hold that this term is erroneously applied to it. That the murmur is presystolic is for the present the view of the orthodox—a view which, while it is eminently respectable in its associations, is yet not antiquated, for it carries with it a reminiscence of recency as of something which was formerly new; and while it has the comfortable warrant of an accepted belief, is yet further pleasing as a discovery which belongs to the time of modern enlightenment. The murmur is one of the most characteristic which the diseased heart can produce. In common phrase, it "runs up to the first sound." I say it "runs up to the latter part of the first sound." It begins softly at the end of the silence which follows the second sound, increases in volume as it goes on, and terminates abruptly with a sharp short noise, like a knock or snap, which concludes the systole. The natural sounds of the heart may be, as you have often heard me say, represented by a trochee, with a short pause between each syllable, and a long pause between each foot. (Diagram 1.)

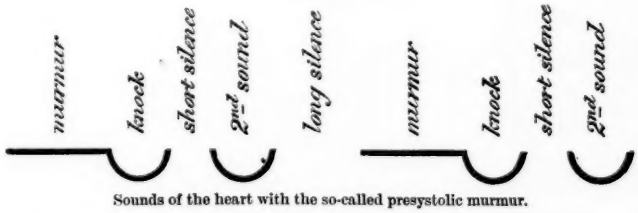
DIAGRAM 1.



Sounds of the heart in health.

When the so-called presystolic murmur is present, the trochee becomes a dactyl, with the first short joined to the long, the second short following after a brief interval. The normal first sound is replaced by two sounds, which are distinct from each other, though separated by no interval: the first is a murmur, a noise of moving liquid; the second conveys the idea of arrest, and the use of such words as "knock," "slap," "snap.' The combination of sounds and murmurs would now appear thus (as in Diagram 2).

DIAGRAM 2.



Sounds of the heart with the so-called presystolic murmur.

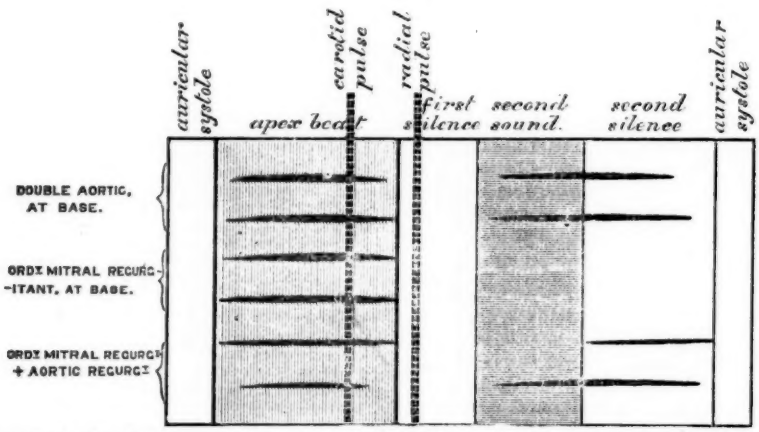
Let me warn you at starting against a misunderstanding which I have often had to correct. The modified first sound is so much like the second sound in character that I have many a time known the second to be described as a reduplication. Ordinarily there is no reduplication, but two independent sounds, one of which is mitral and systolic, the other aortic and diastolic. One has its maximum at the apex, the other at the base. Let us consider first what this knock or snap is, and what the heart is doing when it occurs. The snap ends the first sound; as to this there is no difference of opinion, though some would say it begins it too. After it comes the brief silence, which is succeeded by the second sound. The snap is generally synchronous with the carotid pulse, or, in other words, has the time of the latter part of the systole, to which the carotid pulse belongs. But more of this anon. Some would have it, indeed the presystolic theory implies, that the snap represents the whole systole; there is nothing before it but the murmur, and the murmur is presystolic. The murmur "runs up to it," as the phrase is. But not only is it beyond our comprehension that the whole of the expulsive action of the ventricle should be transacted within so short a space, but the relation to it of the carotid pulse shows that, when the noise in question is heard, the expulsive action is nearly over, is at least so far advanced that the blood has got into the neck. We cannot but infer that the ventricular contraction has been going on before the snap, which represents not the systole, but the end of the systole.

So much for the time of the sound in question. Now as to its origin. In quality it nearly resembles the normal second sound; but it is not this, for this comes after it and is separate from it. The character of the sound suggests that it is made, as is the aortic sound, by percussion. Its place associates it with the mitral valve, and its time at the end of the systole must be that of the closure of the mitral valve, if only that closure be a little delayed and be a little more abrupt than it should be. From clinical evidence, therefore, we should infer that mitral closure makes it, and this corresponds with what pathology shows. When this sound has been heard it is always found, as far as my observation has gone—I have carefully sought for exceptions without finding them—that the mitral flaps are thickened and the orifice contracted so that the valve is able to close, though from its stiffness it is to be presumed that the closure has been delayed, and to close in the manner of hard edges colliding rather than with the gradual yielding adaptation which belongs to the process in health. The mode of production of this sound is of obvious importance in relation to the nature of the murmur which precedes it. That it is due to mitral closure I think there can be no reasonable doubt. Dr. Kingston Fowler stated that he had recognised facets or marks of contact on the opposed sides of a contracted mitral valve in such a case. This to my mind is very important, for it proves the closure, and that by the evidence of an antagonist. And if the time of closure be the end of the systole, as it can scarcely fail to be, the precedent murmur must be within the systole. The closure is retarded by rigidity, as has been said, and may not occur until the sides of the ventricle have been approximated by nearly completed contraction. What, then, is this murmur which "runs up" to the snap? If I am right in placing the snap *at the end* of the ventricular systole, the murmur must be in its earlier part; and if we bring in the sense of touch we shall find that this is the case. The murmur begins with the first appreciable heaving of the apex, or an almost inestimable fraction of time before it, gathers force with it, lasts through the greater part of the impulse, and stops abruptly before its close, the termination being coincident with the snap and with a jar which is conveyed to the hand.

I have said that the murmur may possibly be perceptible just before the apex beat is. Theoretically this should often be so, be the murmur never so systolic; for it is conceivable that the systole should be detected at its very beginning by the sound of leakage, should a leak exist, whereas much must be done before the impulse can reach the finger. But as a matter of observation it is seldom possible to say that the murmur begins before the impulse or the impulse before the murmur; both seem to begin together, increase together, and stop together. Both begin softly and end suddenly in the slap or slam which ends the systole. The nature

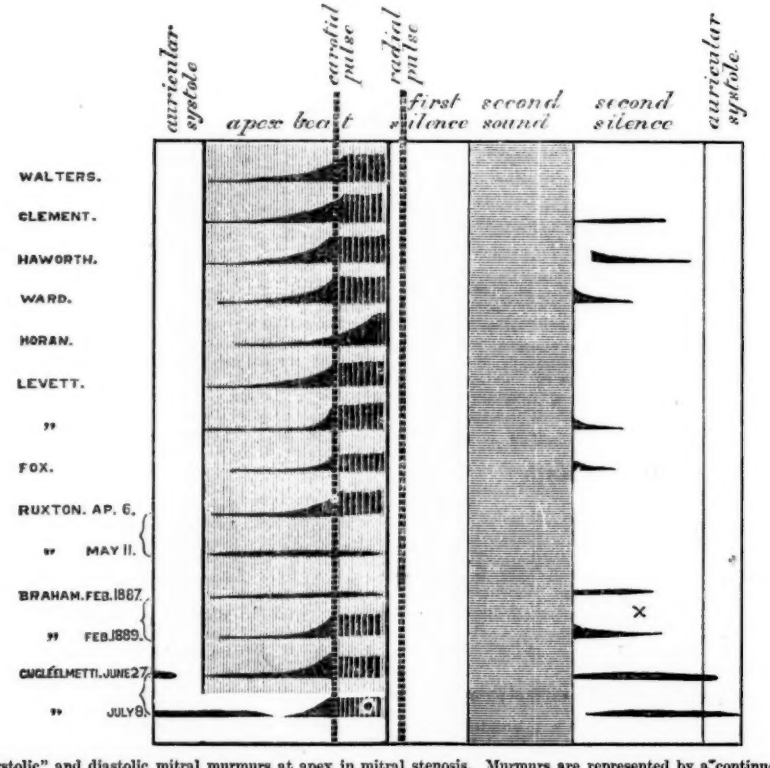
of the peculiar short sound which follows the murmur—the "knock," as I have called it—and its relation to the action of the heart are really at the bottom of the whole question. If the knock represents the systole, the murmur is presystolic. If the knock represents only the end of the systole, then the murmur is systolic. But the sound is one thing and the systole another. That the murmur "runs up to" the *systolic sound* none can question; but as to the *systolic act*, the murmur, I contend, does not run up to it, but arises in it, and runs almost through it. Let us consider what is the cause of the systolic sound. The muscular sound, the sound inherent to contracting muscle, has been

DIAGRAM 3.



Ordinary mitral and aortic murmurs, for comparison with next diagram. The ordinary mitral systolic are shown as going through the whole systole without abrupt stop. The aortic regurgitant begin sometimes within, sometimes immediately after, the second sound.

DIAGRAM 4.



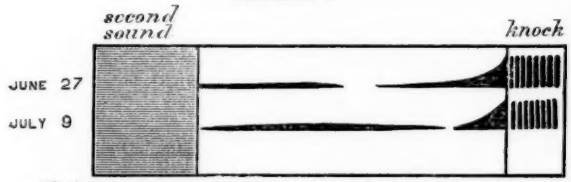
"Presystolic" and diastolic mitral murmurs at apex in mitral stenosis. Murmurs are represented by a continuous horizontal mark, the knock by vertical lines. In many cases the so-called presystolic murmur is accompanied by a short diastolic or direct mitral, from which the presystolic is distinct. The two cases before the last show a not uncommon occurrence—a systolic murmur at one time, and a "presystolic" at another. In the latter phase of the last case the elongation of the diastolic murmur and the abbreviation of the "presystolic" prevented its fitting the table; it is therefore reproduced in the next diagram.

talked of; but no physician practised in heart disease can doubt that the sound is made within its cavity, or hesitate to accept as its chief factors the impact of blood and the sudden traction of cords, and striking together of valves. I need not seek to enforce what is self-evident. The thicker and more powerful the cardiac muscle the less audible is the sound, the thinner the louder. When the mitral valve fails to shut, not only is there no noise due to its closure, but by the consequent leakage the tension within the ventricle is lessened, and with it any sound which may be due to it. If any proper ventricular note survives in this portion of the systole, it is concealed by the regurgitant murmur which is developed. And so nothing is heard of the first sound until the valve flaps have got together, the regurgitation and the murmur been arrested, and the short sharp sound emitted which represents delayed closure and exaggerated percussion. This is the sound to which the murmur "runs up." Much of the systolic act is before it, together with the murmur which this act comprises.

The association of the murmur with the movement of the heart is best defined by the unassisted, or rather embarrassed, ear. Take a thin person in whom the impulse is well marked, and who has a double mitral murmur, diastolic and so-called presystolic. Familiarise yourself by touch with the heaving of the systole and the jar of the knock which ends it. Then place the ear upon the skin, or with only a thin cloth between, at the point of impulse, and let touch and hearing consent until your mind follows to your satisfaction the alternations of the ventricle. If your senses give like evidence with mine, the "presystolic" murmur will go with the impulse, the diastolic with the absence of it, the two being as distinct, as different, and as alternate as systole and diastole.

I have made a habit, with particular reference to this question, of marking the time of murmurs on physiological diagrams presenting the successive phases of cardiac action, and annex some woodcuts taken from them. Some of the divisions, that, for example, indicating the auricular systole, are matters of physiological rather than clinical observation. The positions of the apex beat, of the second sound, and of the carotid beat are of clinical ascertainment, under the guidance of which, as landmarks, the murmurs have been charted. The position assigned to the so-called presystolic murmur with regard to the apex beat involves the essence of the controversy, and of course is open to dispute. I have endeavoured to record the evidence of touch and hearing, unbiased by any inferences which might seem to be suggested, and have, wherever practicable, corrected or confirmed my own observation by that of others. I place first, for comparison, diagrams of the ordinary mitral regurgitant murmur—that is, of the mitral murmur with an uncontracted valve, and of the aortic regurgitant murmur. (*Vide* Diagrams 3, 4, and 5.)

DIAGRAM 5.



The last case represented in Diagram 4 is perhaps better shown in this, which is differently arranged, giving the second sound and the knock as the only indications of the place of the murmurs. The variable position of the break between the murmurs and the apparently variable length of the systole made it impossible to fit this case into the preceding scheme.

I next indicate in the same way the position of the so-called presystolic murmur, the murmur which is so often found with mitral contraction and never without it. The diagram needs no explanation. The murmur commonly runs through the systole, as I have satisfied myself, about as far as the carotid beat, and then is abruptly replaced by the terminal knock. I have represented the murmur by the uninterrupted black mark, the knock after it by separate vertical lines. But the diagram in many cases shows a second murmur; this is a very little one, and is more often absent than present, though present more often than generally recognised; it follows the second sound—that is, it takes place while the ventricle is expanding and the auricle contracting and the current setting towards the ventricle. What is this? By its time it might be aortic regurgitation; but not by its position, for it is heard only in the mitral area. It is best heard, often heard only, as the patient lies, being lost, or nearly so, in the erect posture. In this also the murmur is unlike aortic regurgitant murmurs; like those which belong to a contracted mitral valve. Neither is it accompanied by the pulse of aortic regurgitation. This little murmur, though of late years nearly lost sight of, will nevertheless reveal itself to the attentive ear in a considerable proportion of cases of mitral stenosis. I think there can be no doubt that it is truly auriculo-ventricular. I would say that it is the only murmur which can be correctly so termed. It is the old direct mitral murmur made from auricle to ventricle through a much-contracted mitral orifice. It is totally different in time and tone from the so-called presystolic which begins after it has ceased, but not immediately after, and rumbles up to near the end of the ventricular systole. If this be a direct mitral murmur, as it certainly is, are we to believe that the so-called presystolic is another? Is the heart to have two direct mitral murmurs with an interval between them? "Mon Dieu! v' la deux." Are both genuine, or is one a delusion? If both are auriculo-ventricular, it is remarkable that they should differ in so many respects—one soft short, and distinctly diastolic; the other intense, prolonged, and closely related to the systole, whether wholly within it, as is the present contention, or only in inseparable contact with it, according to the creed of the presystolic apostles. According to this creed we are to believe that two separate and distinct murmurs may be emitted by the blood as it passes from auricle to ventricle; the current is continuous, but the sound interrupted. It has been sought to explain this discontinuity by supposing that the first murmur, the mitral diastolic, is produced by the flow of the blood from auricle to ventricle, from causes antecedent to the muscular effort of the auricle; the second, the so-called presystolic, by the muscular effort which comes at the end of the flow. But at any rate the two modes of proceeding must be connected; we cannot assume a dead stop between the two, yet this we must do if we are to presume that the two murmurs are made in the same course of transmission.[1] We further find it necessary to accept in connexion with the same mysterious heart the dogma that the blood may change its direction at a valve, stop and go back, and the murmur not lose its continuity or change its tone. This is a hard saying, but not too hard for those who believe in the presystolic murmur. Let me make my meaning clear. It is a common experience for the so-called presystolic murmur to be so mixed with what all agree to call the systolic that it is impossible to say where one ends and the other begins, or to make any separation between the two; the "presystolic runs into the systolic," and with this phrase we are to be content without thinking what it involves. It involves the belief that the blood may flow from auricle to ventricle and murmur as it goes, and that the ventricle may then change from relaxation to contraction, the valve alter its pose, and the blood reverse its direction, and yet there be no jar, hesitation, or loss of continuity in that persistent tune.

Important evidence, or what seems so to me, is to be found in the relation of the carotid pulse to the heart's sounds. The carotid pulse in health comes, as is well known, within the systole, but near its end. I have satisfied myself, by careful and repeated observation, in these "presystolic" cases, with finger on carotid and stethoscope on heart, that the pulse in this artery is, as a rule, syn-

[1] The nearest approach to continuity between the mitral diastolic and the so-called presystolic murmurs was in the case of an Italian woman named Guglielmetti (Diagrams 4 and 5), who generally furnished a typical example of the two murmurs with their usual separation and distinctness; but on one or two occasions the first murmur was so prolonged that there was scarcely any interval between it and the second. The first murmur began immediately after the second sound, the second climbed up to the knock in the usual way; the only break which on one occasion I could detect was near the end of the combination, where shown in the diagram. It was here, I presume, that the direction of the blood was reversed. The shortness and lateness of the interval were exceptional even in this case, the usual condition of which is also shown diagrammatically. I may add that there was no doubt as to the existence of mitral stenosis, and to my mind none that the first as well as the second murmur was mitral.

chronous with the knock which concludes the murmur. Where the murmur has been unusually long I have sometimes thought the carotid beat to come just before the knock, so as to be within the murmur; but this is reckoning on small differences which may admit of doubt. Of this I am sure, there is no interval between the end of the murmur and the carotid pulse, this pulse becoming sensible to the finger usually at the same instant as the knock to the ear, the murmur equally "running up" to both. Now let us consider what this implies. The systole of the ventricle must go on nearly to its end before the thoracic vessels are filled and the blood lifted into the neck. Were the murmur presystolic—that is, did it depend on the passage of blood *into* the ventricle, not *out* of it—a considerable time must elapse between the murmur and the pulse for the transaction of the systole. But no such interval occurs; the murmur runs up without a halt to the carotid beat. Unless, therefore, the systole can be done up to the carotids in no time at all the murmur is systolic.

Two points in favour of the accepted presystolic theory are not to be ignored—the absence of the murmur from the scapular region and the thrill which accompanies it at the apex. A murmur in the stream from auricle to ventricle should not be heard in the back, away from which it goes; while any vibration the stream conveys should impinge with it at or near the apex. Both conditions hold with the so-called presystolic and not with ordinary systolic murmurs, and must have their due weight in the balance of evidence. But the absence of the murmur from the scapular region may be explained otherwise than as suggested, and attributed to the small amount of blood which regurgitates through the contracted opening which may not suffice to carry the sound as far and widely as does a larger gush. As to the thrill, the significance of this must depend on its time. If the thrill accords, as according to my observation it does, with the heaving of the apex it is systolic and not made as suggested. How it is made I have not to declare. The circumstances of blood thrills may be various.

To sum up the leading points against the presystolic theory they are these: As has been before urged, the loudness, intensity, and suggestion of force which often belong to the so-called presystolic murmur are incompatible with an origin in auricular contraction. Neither would the needful power seem to be provided by the suction action of the ventricle. This expansile action is a force which must be reckoned with; it has been too little regarded, but has importance in many pathological relations. At its utmost, however, it must be much less powerful than the contractile action, and, with mitral stenosis, must be feebler than it usually is owing to the smallness and weakness of the chamber. I assert that this murmur is heard at the same time that the heaving of the apex is felt. Whether the murmur begins a fraction of time before the impulse, as theoretically it should, or the impulse a fraction of time before the murmur, does not matter, so long as both go on together. That they invariably do this and also end together, my senses do not allow me to doubt. Further, the succession of the carotid pulse upon the murmur without an interval is an indication that this belongs to the contraction of the ventricle. In the next place there is a murmur which is made by the passage of the blood from auricle to ventricle, which is not that to which the term presystolic is applied. This is the genuine direct mitral, or mitral diastolic; it is different from the so-called presystolic in time and character, and when it accompanies it is disconnected from it. Finally, post-mortem observations are consistent with the view that the so-called presystolic murmur is regurgitant, and the knock, as it has been called, the sound of closure.

I would end with three questions, which, if they be answered in the affirmative, the rest will follow. Does the lifting of the chest wall as felt with the finger indicate the systole; does the murmur accompany the lifting; does the carotid beat follow the murmur without an interval? If these do so, the murmur is systolic. On these grounds I maintain that the so-called presystolic murmur is systolic, and is due to regurgitation before closure. I have but a limited expectation of converting those who have long held the presystolic theory. Old views, like old tissues, get indurated. My chief appeal is to the rising generation, and my personal belief, if I may be forgiven the expression of it, is that the time will come when the presystolic murmur will take its place among the errors of the past.

ABSTRACT OF

An Address

ON THE QUESTION

WHY SHOULD MEDICAL STUDENTS STUDY PHYSIOLOGY?

Delivered before the Medical Society of University College.

BY PROFESSOR MICHAEL FOSTER.

I WILL ask your permission to speak to you this evening for a short while in a familiar way, as an old medical student to a young medical student, concerning the question why medical students should study physiology. To this there is an answer which I am sure you will all be ready to give me—We study physiology because we are examined in it. I take it that the object of a medical examination—by which I mean, not the fancy examinations which are carried on by our Universities, but the examination which gives the diploma, or licence to practise—is simply to clear the way for the choice of the public. It would be possible for the public to have free choice in its selection of a doctor; it might be open to any patient to choose any man with a view to curing him, but in that case it might often happen that the patient did not live to see the result, and it has been approved by the world at large that a certain preliminary selection of men shall be made; and although it cannot be said that these are sure to cure or relieve, at all events, there is a fair presumption that they will be able to do so. Now, in the selection of these men, the most direct and experimental method that would naturally suggest itself—certainly the most direct means of ascertaining the ability of an aspirant to cure or relieve—would be to put into his charge a certain number of patients, sufficiently large to obviate any errors of chance, and to watch the result; but that, I think, would be a plan very costly and not unattended with danger. Hence society has come to require that a sort of sham tournament should be held, that the would-be medical man should be examined as to his ideas concerning the proper treatment of cases submitted to him, and that he should be required to state on paper his notions concerning the nature of disease. Now, I take it that this examination is the real examination for the medical man, and the one on which in all cases the greatest stress should be laid. It is not altogether a satisfactory examination, but under the circumstances it is as good an examination as can be held. Now, it is obvious that no one is fit to be let loose upon the public to cure their maladies who is ignorant of certain fundamental notions concerning the nature of disease. And these fundamental notions concerning the nature of disease cannot be taken in until certain notions concerning the structure and working of the human body in health have been acquired; hence it has come about that while the final examination is a preliminary selection of men who are probably fit to treat disease, there has been established another anterior preliminary examination in what we speak of as anatomy and physiology. Again, since an adequate knowledge of the structure and working of the animal body is impossible without some previous acquaintance with elementary physical laws, it has come about that there is another still anterior examination in certain elementary principles of chemistry and physics. Now I take it that that is all that ought to be included in a medical examination. A candidate is examined in physics and chemistry, not that he may be a physicist or a chemist, but that he may know enough of these things to enable him to understand the doctrines and teachings of physiology and anatomy, and he is examined in physiology and anatomy, not that he may become a physiologist or an anatomist, but that he may have that knowledge of the structure and working of the human frame which will prepare him for the due and rapid appreciation of the changes which take place in that frame in circumstances of disease, and he ought to know the nature of these changes if he is not to be a rule-of-thumb doctor, but a scientific physician.

I cannot conceive that the public has a right to demand anything more. There may be other things which are desirable in a doctor, but they are things which in my opinion are unnecessary for the protection of the public, and it is the protection of the public which is the basis of medical examinations. It may be very desirable indeed for the medical man to be a scholar, but the public has no right to demand that he should be one. It is far more needful that he should be a gentleman than a scholar, but you cannot put that into an examination.

The physiology the medical student requires is an acquaintance with its fundamental and elementary rules, but it must be a *real* acquaintance with them. He must know, for instance, thoroughly the laws which govern the movement of the blood, from the small arteries through the capillaries into the veins. And to know physiology really and truly he must be able to judge of the way in which its conclusions have been reached; he must understand its methods, and he must know the instruments, the results obtained by which are the foundation of a large number of the theoretical views. And although you do not want much physiology for an understanding of the principles of medicine and of the nature of disease, yet as wise men you would do well not to present yourselves at the examination loaded simply with just the necessary amount of physiology; you should always leave a margin for accident. I believe there are sometimes accidents in examinations. I know a friend of mine who was floored by the morning paper because he had eaten too hearty a breakfast, and I take it that in an evening examination a too hurried dinner will draw a veil between the examiner and the real ability of the candidate.

But there is another reason why you should go beyond that minimum. A medical examination, as I have said, is only a preliminary selection. It only says that this man is, on the whole, fit to take charge of the sick; your ultimate success in life will be the result of a struggle for existence, and your income will depend not merely upon your having satisfied the examiner, but upon the amount of skill which you will display in your life afterwards. Have you an amount of physiology beyond that minimum required by the examining boards to help you in this struggle? For if it will not help you, I, as a physiologist, have no right to ask you to take the trouble to learn it. But I am sure that it is in your interest to learn a fuller physiology, and though much of what you learn may be compared to scaffolding which must sooner or later come down and be displaced, yet at the same time there is a great deal of "real house," of firm basis, which will remain for all time. These real physiological truths require careful and prolonged attention in order that the student may lay hold of them, and he does this all the more readily if he carries on practical work in the laboratory. The latter work carries with it no special virtue of itself, for it is astonishing how much time the student may spend in the laboratory and yet remain quite free from any taint of physiology. The work to be done must be done not only with the hand, but with the mind, and he only will gain by it who, working in the laboratory at the things themselves, while looking at them reads in those things the lessons which they teach. The physiology which can be of use to medical men afterwards is the same physiology which is required of the candidate at examination—a real acquaintance with fundamental physiological notions; but the value of it will depend upon the way in which it is used. And let me here say how not to use it. You must not take the latest results of the laboratory and apply them direct at the bedside; for physiology is only as yet in its infancy; and in our notions of the nature of disease things are only at the same level. Nothing is to my mind more dangerous than the practice of taking, so to speak, "raw" physiology at once into clinical work; and if you look back on the history of the profession you will find that these attempts to take physiology straight off into practical use have proved delusive, and to my mind a great deal of discredit has been thrown upon physiology by these attempts. When I last addressed this Society eleven years since, I took as my subject the absolute identity between pathology and physiology, and I tried to lay before you the opinion that these two sciences were fundamentally the same; that they were only, so to speak, the two sides of one sheet. The great use of physiology to a medical man is to supply him with ideas which will help him in pathological and clinical investigation. Let him in practice use his physiology as a working hypothesis, and let him combine with this pathological and clinical observation, and out of it will come a true theory which will go far to cure the disease. Think for a moment of that great discovery of antiseptic surgery. Lister started as a physiologist, and the commencement of the antiseptic theory was a physiological idea worked out on pathological, clinical, and experimental lines. Take, again, the surgery of the brain; physiology has gone hand-in-hand with clinical surgery and post-mortem observation, and brilliant results have been attained. But though you may say you have neither time, opportunity, nor ability to make these medical inquiries, yet you can and must be critics and judges. I am astonished and gratified by the amount of physiology which I find has been introduced into practice, the amount of physiological knowledge now found common to the medical profession. But not all the physiology so found is good; much of it, indeed, is bad. Let the student, therefore, so train himself that he may be able to detect the bad—those physiological wolves in pathological sheepskins, which make their way into the medical fold and do so much damage. The greatest use of an adequate physiological training is to enable a man to detect in after-life with tolerable readiness those theories which are worthy, and to separate them from those which are worthless. To attain that faculty, and to let that physiological judgment get into your minds, you must give serious attention to its study. One great evil in life is that it is apt to be dull; the life of a doctor who takes no living interest in his profession is apt to be dull. Nothing will bring brightness to your life—not music, not even good dinners—if you do not find brightness in your daily task; but brightness may be got if you lay hold of your old physiological learning. Physiology has a mystery in her own right and a future of her own; physiology has not only to do with the mending, but with the making of men. If, in the intervals of leisure, you study it, you will find pleasure in it which will always prevent your life from being dull.

Clinical Lecture

ON

MASSAGE SCOOPS AND IRRIGATION IN THE EXTRACTION OF CATARACT.

Delivered at the Ulster Eye, Ear, and Throat Hospital.

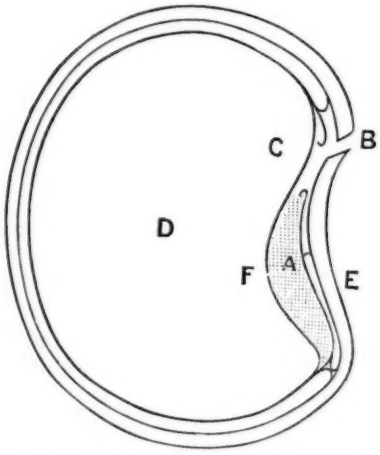
BY DR. McKEOWN.

GENTLEMEN,—We shall consider to-day the most delicate and critical stage of the operation of extraction—viz., the removal of residual cortex. I may add also that it is the most uncertain, notwithstanding the accumulated experience of nearly two hundred years; for though a competent operator with a steady patient can make the section with absolute precision in every case, the most experienced cannot in many cases say whether he can or cannot remove the cortex by the ordinary methods of massage and scoop. It may surprise you when I say that these methods, which have been so long in use, are in a broad sense unsuited for the object in view, and therefore unscientific. You have had no opportunity of seeing in this hospital the use of the scoop at all, and massage has only been used in a very mild way, being only regarded and used by me occasionally as an auxiliary to irrigation. I shall try, however, to prove to you what massage is capable of doing and what it is not. To this end you must look at the physical character of the structures, and consider the conditions involved in the problem of extraction—a matter, I fear, which has not had sufficient attention.

You have now before you a rough drawing of the eye with pressure on the cornea exercised after expulsion of the nucleus. (Fig. 1.) This figure will explain to you better than I can do by words the inherent difficulty of removing cortex in any degree resistant. The soft, jelly-like vitreous (D) is the point, or rather cushion, of resistance; the force is applied at E, and causes a depression of the remains of the lens (A) and of the vitreous at F, with a corresponding bulging of

the vitreous at C, opposite the wound. It is obvious that, whether the remains of the lens (A) will be expelled or, on the contrary, the bulging vitreous at C, depends on the relative resistance of the remains of the lens (A) and the hyaloid membrane at C. If the cortex (A) be soft or, if not soft, be separated from the capsule, it may be rubbed and pressed out; but if neither of these conditions exist the

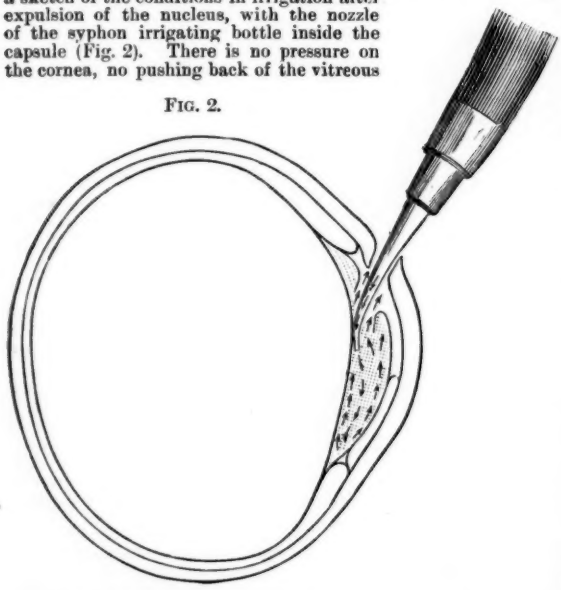
FIG. 1.



A represents cortex imprisoned in capsule after expulsion of the nucleus. B, Corneal section gaping on pressure exercised at E. C, Hyaloid membrane bulging towards wound. D, Vitreous. E, Cornea depressed by finger or scoop.

chances are that, notwithstanding all efforts, it will in great part remain in the eye a source of probable mischief. As you have never seen me perform an operation trusting to pressure and massage, you can have no adequate idea of the trouble and prolonged manœuvres often necessary and often fruitless. Whilst Fig. 1 is before you I show you now a sketch of the conditions in irrigation after expulsion of the nucleus, with the nozzle of the syphon irrigating bottle inside the capsule (Fig. 2). There is no pressure on the cornea, no pushing back of the vitreous

FIG. 2.



no squeezing of the hyaloid membrane towards the section. The current of water, under the control of the surgeon, flows inside the capsule to the periphery, and returns along the anterior and posterior capsule, searching every corner and bringing with it fragments of cortex from every part of the capsule. The force is equable and gentle, and acts not only on the parts we do see but on those concealed by the iris, and quite as well on the parts concealed as on the parts visible. In both cases an iridectomy is supposed to have been performed. With these two figures before you it must be clear that the complete extraction of cataract is simply a question of physics, of relative resistance and relative well-directed and suitable force; and, if I may prophesy, the method which will prevail is that which most accords with physical laws and conditions.

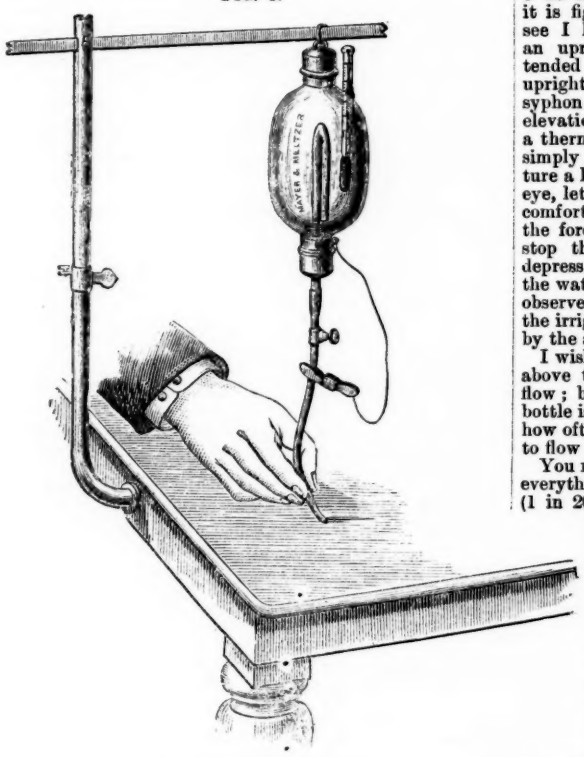
I now come, a little out of order, perhaps, to the use of scoops. The history of scoops is one of which the ophthalmic department of the profession has no reason to be proud. It illustrates very well indeed the tendency of the mind to get into a groove, to adopt views and practice without adequate inquiry and stick to them for generations, though warned of their general unsoundness by daily experience. St. Yves was the first to use a scoop. He removed by it a dislocated lens through a corneal section. For this sort of operation it was a proper instrument, and at this day for a like case it holds its ground. But when Daviel applied corneal section to remove cataracts, not dislocated but remaining *in situ*, he, probably following St. Yves in a way, used a scoop to remove, not the body of the lens, as St. Yves did, but fragments of the lens in the pupil after extraction of the nucleus. I cannot help thinking that, useful though the scoop of St. Yves was, and useful though the curette of Daviel may have been in isolated cases, this use of the scoop has dominated the surgery of cataract not to its advantage. Surgeons have not used enough the critical faculty, but have been too much led by a regard for names and authority. Indeed, from the time of St. Yves till quite recently ophthalmic surgeons have had fitful periods of a mania for scoop invention. They have followed St. Yves and Daviel, and, I think, without any satisfactory reason. I will now examine in a few words, as I did in the case of massage and friction, what the scoop can and cannot do as regards removal of cortex. I will begin with the old classical flap extraction, for a time recently under a cloud, but now happily revived. You know iridectomy was not performed, therefore, after expulsion of the nucleus, the only part of the lens area under view was that of the natural pupil—that is, about one-eighth or one-tenth of the anterior surface of the lens; and as the scoop could only be used to remove fragments seen by the surgeon, it could have any possible application on only the one-eighth or one-tenth of the field.

I must speak quite plainly about this; and I say the use of the scoop was inapplicable for about nine-tenths of the field of operation, and even uncertain for the remaining tenth, and therefore was radically bad. But some may think that the combined operation of iridectomy with extraction remedied this to some extent. This is quite true, but, on the most favourable view, just about in proportion to the enlargement of the pupil. If iridectomy enlarged the pupil so as to expose one-fourth of the area of the lens, then the scoop might be used on one-fourth of the field, but on the other three-fourths it could not be used at all. All scoops, therefore, no matter by what distinguished names they may be called, must be condemned as inefficient on the ground I have stated. There are other objections to scoops, but it is a cardinal point in dealing with any question, that if you have an unanswerable objection you should not trouble to discuss minor points.

In view of what I have told you of the physical defects of the methods of pressure, massage, and scoops, you will not be surprised to learn that the bounds of legitimate operations for cataract have been comparatively limited. For the cataract should be of such a character that it could be removed by the methods of massage and scoop—that is, it should either be so firm from centre to capsule as to come out completely at once, or so soft all through, or on the surface, that all the lens could be removed. In fact, conditions were required which left little or nothing for massage or scoop to do. The surgeon judges by appearances, and if he determine that a cataract is ripe, he operates, and the accuracy of his diagnosis can be determined by the operation. So we have this important information, that operators of experience know that the diagnosis of ripe cataract is in a considerable percentage erroneous, and that the operation is attended with unforeseen difficulties. The consequences of such a mistake are very serious for the

patient, and the surgeon with only massage and scoop is simply powerless. On the other hand, when the surgeon diagnoses a cataract as unripe, he rarely operates, and in cases of such a character there is therefore no means of knowing whether his diagnosis of unripeness is right or wrong. To sum up: when a diagnosis of ripe cataract is made, there is a varying percentage of error as regards the ease of perfect removal and a consequent risk to the patient; and when a diagnosis of unripeness is made, the patient is not subjected to the risks of an operation, but is put aside for months, and often for many years, with the prospect of a miserable life, and perhaps dependence on friends or on the doles of parochial charity.

FIG. 3.



Syphon irrigating bottle

I think you have seen so much here that you know these difficulties are all faced. With intraocular irrigation as practised here, I do not fear unexpected difficulties in the ordinary cases, and do not hesitate to operate on cases of transparent and sticky cortex—in other words, of unripe cataract. And why? Because I have a well-tried method, at least well tried in this hospital since 1884, and one which makes the surgeon, in a general sense, the master of circumstances. I cannot impress on you too strongly that for success in surgery the surgeon should be armed to meet all eventualities. I need not tell you, though I am sure it would be interesting, of the various stages of development of the method of irrigation and injection. I have devised and used various instruments of various degrees of efficiency and of varying defects, but this I have always had before me, that the force of pure water was the proper force to clear out the residue of the lens, and I have never seen any reason to change my opinion.

I show you now the instruments I have used since the spring of 1884, but I ask your special attention to the last one—the syphon irrigating bottle (Fig. 3). It is flat and holds about four ounces. In the inside of the bottle there is a bent tube, the bend reaching nearly to the top, whilst one end reaches to the bottom of the bottle, and the other end passes through the screwed-on cap at the lower end of the bottle. To the lower end of the tube is attached an indiarubber tube on which are a clamp to stop the flow of liquid and a ring with a screw to press the sides of the tube together and diminish the initial force of the flow. I do not know that the latter is of much use, but as it is figured in the diagram I allow it to remain. You see I have a horizontal bar moving up and down on an upright attached to the operating table, and I intended to have the syphon bottle suspended on the upright bar, but I have found it is better to have the syphon bottle held in the hand of an assistant at a suitable elevation. You see also a hole in the top of the bottle for a thermometer, but I have discarded the thermometer. I simply after charging the bottle with water of a temperature a little above blood heat, before I begin irrigating the eye, let the water flow on the back of my hand till it feels comfortably warm; then grasp the indiarubber tube between the forefinger and thumb just above the nozzle, and thus stop the flow, and introduce the nozzle into the eye or depress the lip of the wound and, relaxing my grasp, let the water flow, and stop the flow when I think it necessary, observe the effect, perhaps use slight massage, and renew the irrigation, being guided as to continuance and repetition by the appearance of the pupil.

I wish you to note specially that until the bottle is filled above the bend of the tube the water will not begin to flow; but once it has commenced it will go on until the bottle is emptied unless stopped by pressure, and no matter how often the clamp is applied the water will at once begin to flow again on its renewal.

You may have observed the care which is taken to have everything aseptic. A solution of perchloride of mercury (1 in 2000) is passed through the syphon bottle, then the bottle is rinsed with distilled water previously boiled, then the bottle is charged with distilled water likewise previously boiled and above blood heat, and the water allowed to flow through the tube before use. The tube in the bottle being of silver and the nozzle being likewise of silver, they are tarnished by the mercurial solution. I do not think that of importance in relation to the tube in the bottle; but I have the nozzle passed through the flame of a spirit lamp, rubbed, and washed by the flow of water before introducing it into the eye. The aseptic precautions described to you may seem unduly troublesome; but I cannot impress on you too much that cleanliness and attention to minute details are of the very essence of surgical success.

(To be continued.)

NOTES ON SOME CASES TREATED BY

SUSPENSION AT THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE.

BY J. S. RISIEN RUSSELL, M.B.,
AND
JAMES TAYLOR, M.A., M.B.,
HOUSE PHYSICIANS TO THE HOSPITAL.

BY permission of the physicians, under whose care the various patients were, we are able to publish a list of some of the cases in which the suspension treatment as recommended by Charcot was tried at the National Hospital for the Paralysed and Epileptic, Queen-square. The cases here recorded are, it will be observed, all cases of tabes dorsali with the exception of two—one of lateral sclerosis, appas rently primary, and the other of postero-lateral sclerosis, the "ataxic paraplegia" of Dr. Gowers. The apparatus used was the ordinary Sayre's apparatus, consisting of tripod with head and arm pieces suspended on a pulley. Suspension was done every other day, and in all the cases recorded here was the only treatment employed. Half a minute to a minute was the time allowed for the first suspension, and this was increased as rapidly as the patient could bear it, up to four minutes, which may be taken as the time of the last four-fifths of the suspensions in each case. In only one case (No. 10) were the suspensions done

daily; and whereas in the other cases four minutes was the longest time given to any one suspension, in this case three minutes was the limit. Both arm and head pieces were used, and as soon as the patient had acquired confidence he was directed to raise the arms slowly from the sides until the whole weight of the trunk depended from the neck. Patients, as a rule, were able to do this about every half-minute, but they varied greatly in the facility with which they could carry out the movement.

The inconveniences experienced by the patient were in most cases slight. During the first few suspensions some pain was usually complained of at the back of the neck, probably due to a stretching of the muscles in that locality. Occasionally, too, soreness of the jaws from the pressure of the chin-strap was experienced, and pain at the bottom of the back. One or two patients complained of faintness during some of the early suspensions. Two (Nos. 5 and 9) were subject to this even after they were well used to the treatment; one (No. 8) had so much discomfort at each suspension that he begged it might be discontinued, while two others (Nos. 14 and 16) had their symptoms so much aggravated that it was considered unjustifiable to persevere with suspension. There was a remission of the distressing symptoms as soon as the treatment was stopped. In all the cases where the ataxy was a symptom, if the patients were able to walk there was noticed to be some intensification of this symptom immediately after the suspension, and this continued sometimes even for an hour or two.

As to the results of the treatment, all that one is justified in saying is that three of the cases (Nos. 3, 5, and 11) improved while undergoing the treatment. One (No. 10) improved at first, but during the last three weeks he had a relapse, and when he left the hospital was certainly worse than he had been a month before. Another case (No. 4) had between April and June a course of twenty-five suspensions, but experienced no improvement. A month after this the ataxy became much more marked, and the suspensions were resumed. After ten suspensions he began to improve, and this improvement was maintained until he left the hospital. Considering the negative result of the first course of suspension in this case, the improvement during the second course can scarcely be regarded as anything more than a coincidence. Case 2 said that he thought he walked better and was more steady, but neither Dr. Ormerod nor the house-physicians observing independently could say that there was any improvement to be seen. Case 12 was one in which commencing optic atrophy was the prominent symptom, and although the patient himself said he thought his vision was better, careful testing could not confirm this.

In the cases in which improvement did occur, this consisted in a less ataxic gait and a greater steadiness in standing. In no case, however, was there ability to stand with the eyes closed, nor was there a return of the knee-jerk or of the pupil reaction to light. In one case the shooting pains were relieved somewhat, but in none of the cases had those been at once a recent and a prominent symptom.

In the greater number of the cases it will thus be seen that there was no improvement. Most of them remained practically in the same condition, but in more than one

SIXTEEN CASES TREATED BY SUSPENSION AT THE NATIONAL HOSPITAL, QUEEN-SQUARE, W.C.

No.	Name and age.	Physician's name.	Disease.	Prominent symptoms.	Duration of illness.	Number of suspensions	Results.
1	A. B., aged 44.	Dr. Ramskill.	Tabes dorsalis.	Total inability to walk; great incoördination in hands and loss of muscular sense; occasional retention; pupils reacted normally.	18 months.	30	No improvement; hands more useless than before.
2	C. D., aged 31.	Dr. Ormerod.	Ditto.	Marked ataxic gait; Argyll-Robertson pupils; no pains for several months.	2 years.	29	Said he walked more steadily; no objective change apparent to several observers.
3	E. F., aged 40.	Dr. Ferrier.	Ditto.	Marked ataxy; Argyll-Robertson pupils; no pains.	2 years.	30	Decided improvement in walking and greater steadiness in standing.
4	G. H., aged 49.	Dr. Bastian.	Ditto.	Great ataxy; occasional lightning pains; difficulty in micturition; Argyll-Robertson pupils.	7 years.	45	Between April and June had twenty-five suspensions; no improvement observed; in the end of June ataxy became much worse; suspension was resumed; improvement began after eight or ten suspensions, and was maintained.
5	J. K., aged 36.	Dr. Beevor.	Ditto.	Ataxy considerable; pains in loins; joint change in knee; Argyll-Robertson pupils.	3½ years.	33	No improvement until after twenty suspensions, then considerable improvement in walking; loin pain was still troublesome.
6	L. M., aged 49.	Dr. Ferrier.	Ditto.	Marked ataxy; pains in limbs, not severe; difficulty in micturition; Argyll-Robertson pupils.	3 years.	22	No change.
7	P. R., aged 38.	Dr. Ferrier.	Ditto.	Marked ataxy and occasional pains; Argyll-Robertson pupils.	7 years.	18	No change.
8	R. S., aged 41.	Dr. Beevor.	Ditto.	Ataxy; lightning pains and patchy anæsthesia; Argyll-Robertson pupils.	2 years.	18	Ataxy worse; more pain; patient begged to have treatment changed.
9	T. W., aged 34.	Dr. Beevor.	Ditto.	Optic atrophy; no ataxy; laryngeal crises; numbness.	5 years.	19	No change.
10	A. J., aged 41.	Dr. Ferrier.	Ditto.	Ataxy; numbness in limbs; no pains; Argyll-Robertson pupils.	3 months.	41	Improved at first in ability to walk and stand steadily; had a relapse in the last fortnight.
11	B. S., aged 35.	Dr. Jackson.	Ditto.	Marked ataxy; occasional lightning pains; Argyll Robertson pupils.	2 years.	30	Greater steadiness in standing, and gait is less ataxic; pains less severe.
12	C. R., aged 39.	Dr. Anderson.	Ditto.	No ataxy; pains six years ago; optic atrophy (primary); vision: right eye $\frac{6}{60}$, Jaeger 12; left $\frac{1}{60}$, Jaeger 1.	6 years.	30	No objective change while undergoing the treatment; he considers his sight better.
13	D. M., aged 44.	Dr. Ramskill.	Ditto.	Slight ataxy; extreme myosis and fixed pupils.	6 years.	15	No change.
14	E. L., aged 49.	Dr. Ferrier.	Ditto.	Ataxy (slight); Argyll-Robertson pupils; incontinence; diarrhœa; sickness occasionally.	4 years.	12	Had vomiting almost daily; diarrhœa continued; incontinence worse.
15	J. C., aged 25.	Dr. Ferrier.	Lateral sclerosis.	Rigidity of right leg, and consequent difficulty in walking; exaggerated knee-jerks and ankle clonus.	2 years.	30	Worse; rigidity greater; greater difficulty in walking.
16	G. J., aged 42.	Dr. Ferrier.	Postero-lateral sclerosis.	Ataxy; knee-jerks active; no pupil change.	7 years.	4	Always epigastric pain and nausea during suspension.

there was an evident retrograde tendency. As to the result of the treatment in the two cases at the end of the list—one of lateral sclerosis and one of postero-lateral sclerosis,—the former certainly became worse, as was evidenced by greater rigidity and greater difficulty in walking; the latter had epigastric pain and nausea during each suspension, so that it was considered advisable not to persist in the treatment, after he had had only four suspensions.

ON

TREPHINING THE SACRO-ILIAC JOINT IN SACRO-ILIAC DISEASE; WITH CASE.

BY MAYO COLLIER, M.S. LOND., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON, NORTH-WEST LONDON HOSPITAL, ETC.

As the subject of sacro-iliac disease and its treatment is not generally so well understood as diseases of the other joints, I make no apology for placing the following case and the method of treatment I adopted for its relief before the profession. Before doing so, however, I propose to first give a brief sketch of the history, pathology, and treatment of the disease as propounded in this country and America. I am indebted to Dr. Weller van Hook of Chicago for most of the facts contained in this notice. It would appear from inquiry into the literature of the subject that opinions differ widely in this country and America as to the frequency, causation, and treatment of this affection. Professor Lewis Sayre says that in the United States sacro-iliac disease is quite common. Our best authorities here describe it as being a very rare affection. Professor Sayre again says it is always of traumatic origin. It is generally considered in this country as associated with struma or tubercular disease. Again, treatment differs widely. In America, fixation with extension and the application of the actual cautery appear, in the hands of Professor Sayre, to have been attended with very satisfactory results. In this country disease of the sacro-iliac joint is looked upon as a more or less fatal affection, and the treatment appears to be confined to rest in bed without fixation, and the opening or aspirating of abscesses as they present themselves. Mr. Arthur Barker, relating the experience of the surgeons at University College Hospital during a period of ten years in Holmes's System of Surgery, says the results of treatment in these cases have not been encouraging. Out of fifteen cases one is noted as cured, three as having died; five are stated as relieved, three unrelieved, one uncertain; two now in hospital are in a very critical state. With these facts before us we cannot but agree with Mr. Barker that the above results are not encouraging.

Turning to the history of this affection, one finds that the older authors make no mention of sacro-iliac disease. The first mention is by Boyer in 1821, who describes this disease as a chronic affection of the sacro-iliac joint due to a scrofulous taint, and similar to the affection causing spontaneous luxation of the hip-joint. Velpeau three years later describes having found pus in this joint during the puerperium, and looked upon this as an infecting centre of other suppurations found at autopsies. Larrey describes the disease under the term "sacro-coxalgie." He compares it to tumour albus of the other joints. In 1833 an article by Langier appeared in the "Dictionnaire Médicale" on the subject. About this time also Hahn published in German a more or less complete *résumé* on this affection. It would appear that between the years 1838 and 1847 no less than six theses were written on sacro-iliac disease for the Faculty of Paris. In 1853 Gurlt dealt with this disease in his treatise on the joints. In this country Mr. Erichsen was the first to give an intelligible account of this disease. In a lecture published in THE LANCET in 1859, he gave a clinical account of this affection, and clearly fixed many of the chief points in the differential diagnosis. After Mr. Erichsen had directed attention to sacro-iliac disease in this country, the subject was again taken up in France and America. Professor Sayre, from his great experience, was able in 1879 to refer in a clinical lecture to eighteen cases of sacro-iliac disease with one death. In his "Orthopædic Surgery" a short reference is all that is given of this disease, and an account of the operative interferences that he has resorted to in certain cases where abscesses had formed. By the industry of Dr. Van Hook, a summary of over fifty cases of sacro-iliac disease has been collected from the records of this country, America, and the Continent. For reasons which will be apparent, they are divided into two sets: 1. Those attended by suppuration. 2. Those not so attended. In number, 30 of the former and 21 of the latter.

Now, although it would be more satisfactory if the number of cases in these tables was 500 instead of 50, still some glaring facts are apparent. On looking at the table of cases where suppuration did not take place, out of 17 cases kept under observation till the termination 16 recovered, or 94 per cent. On the other hand, among 38 cases where suppuration did take place only 3 recovered without operation—that is, 7·9 per cent. The tendency of the disease is thus readily seen to be strongly unfavourable to life in the moist form; while in the form in which dry granulations persist throughout the disease the prognosis is favourable. Speaking of these figures Dr. van Hook says: "A natural division of therapeutic measures, as well as obvious classification for diagnostic and descriptive purposes, follows from these facts. For, if recoveries amount to 94 per cent. of all cases in which no abscesses form, we have certainly reason to be satisfied with whatever measures of treatment have contributed to that result. And since we know that cases in which the disease exhibited a dry form in the beginning may at a later period exhibit cold abscesses, we must adopt all possible means to prevent such a termination."

Now, it was with this most desirable object in view in the case detailed below, where from the great pain and constitutional disturbance suppuration was threatening, that I opened the sacro-iliac joint with a trephine. The desirability of this procedure to my mind was twofold. In the first place, to relieve tension and so prevent suppuration; and, secondly, if suppuration was present, to direct it to a less dangerous channel. When suppuration takes place in the sacro-iliac joint the pus pursues either an intra-pelvic or extra-pelvic course, rarely both. Of 55 abscesses collected, 21, or 38·2 per cent., were extra-pelvic—i.e., made their way directly posteriorly; while the remaining 38, or 61·8 per cent., entered the pelvic cavity. The fate of these cases was uniformly bad. Of the 21 extra-pelvic abscesses, 18 found their way immediately to the surface, 2 went up to the lumbar region to point there, whilst one only descended to the gluteal region. Turning to the cases of intra-pelvic abscesses, it will be readily understood that the situation of the ileo-psoas muscle immediately over the joint favours the passage of the products of suppuration along its sheath to a very important degree. Thus 4 abscesses dissected up to the lumbar region, while 18 followed this muscle down to lie embedded in the muscle sheath or to point near the insertion itself. The remaining 12 abscesses seemed to travel directly downwards, either, on the one hand, to pass through the sciatic notch, some to point over the gluteus which has been perforated, others to make their appearance on the posterior aspect of the thigh; or, on the other hand, to perforate the rectum, the perineum, or the anus. From this, we learn that an abscess pointing anywhere but directly over the joint is probably intra-pelvic, and the prognosis consequently grave. The following case is chiefly interesting from the fact that, although seen by several distinguished surgeons and physicians, the disease was not diagnosed till it fell into my hands.

C. W——, aged thirty-four, married; home South Africa. Has suffered for the last four years from pain in and about the right hip and lameness. No relief being obtained in South Africa, she came to this country in the early spring of last year for further advice. The case was sent to a well-known hospital physician of this city, who diagnosed the complaint as ovarian irritation, and treated it as such. Under this treatment the case not improving, a specialist on joint disease and surgeon to one of the metropolitan hospitals was consulted. He confirmed the diagnosis of the physician and recommended massage. Mrs. W—— still not improving, I was requested to see the case. At my visit I found her reclining in bed on the left side and supporting the body on the left elbow; she said she could not lie or sit upon the left buttock without pain. In answer to my questions, she said that her mother had died of consumption, her father was alive, but that her brother and sister both were weak in the lungs. She herself had had a severe attack of hæmoptysis two years ago, and was confined to

bed for eight months. The present trouble was attributed to lifting a heavy box. She was treated in Africa for hip-joint disease. On examination, the right hip-joint was normal, and the thigh was slightly flexed on the abdomen. There was nothing abnormal to be noticed front or back—no tumour or thickening in the pelvis to be made out. The patient complained of pain on walking or sitting on the right tuber ischii, pain on coughing, pain during micturition, radiating down to the pubes of the right side and down the right thigh; pain also on deep pressure in the right iliac fossa; pain on pressing the ilia together; pain also well marked on pressing immediately over the centre of the joint behind; occasional pain down the back of the right thigh and the right knee-joint. On walking, the patient stepped cautiously, inclining the body to the right side and advancing the right leg in front of the left. The toe was not everted. From these symptoms I had little doubt that disease existed in the sacro-iliac joint.

Sir James Paget kindly saw the case with me on the following Sunday and confirmed my diagnosis. A double Thomas' splint was ordered and tonics prescribed. The patient would not submit to counter-irritation in any form, having, as she said, been "nearly killed with blisters in South Africa." After the application of the splint matters did not mend. The patient suffered from almost constant pain, her nights were sleepless, and in fact she was running down very fast. Some local heat was apparent over the joint, but no general rise of temperature was at any time apparent, although the thermometer was used regularly throughout the treatment. With a view to surgical interference, I removed the patient from her apartments to St. Thomas's Home. Here the case was again seen by Sir James Paget, in conjunction with Dr. Edmunds. I proposed to trephine the joint from the outside, and my proposal was not dissented from, although not recommended by my colleagues. With the assistance of Dr. Edmunds and, in the presence of Mr. Makins and others, I proceeded to open the joint with a medium-sized trephine. When on the table a distinct swelling was noticeable over the joint about as large as the palm of one's hand. Examined per vaginam and rectum the pelvis was free from disease. A curved incision, eight inches in length, parallel with, and an inch below, the posterior third of the crest of the ilium, and descending vertically over the joint, exposed the bone sufficiently. The bone was next denuded with the elevator, and now was seen to be distinctly swollen and inflamed. A line being drawn from the anterior superior spinous process to the posterior superior, two inches were measured from this posteriorly. The pin of the trephine was placed on the line, so that the edge of the circle should be on the two-inch limb. The bone appeared softer than natural, the trephine rapidly penetrating to the joint. On removing the button of bone with the elevator a bed of soft fleshy granulation tissue was reached, fully one-third of an inch in thickness. The opposing surfaces of the joint were quite denuded of cartilage, and the bone on the sacral aspect was eroded, hard, and of a distinct yellow abnormal colour. The whole of the granulation tissue and dead bone, as far as could be reached, was removed with the gouge and mallet, the joint swabbed with chloride of zinc (forty grains to the ounce) and subsequently well dusted with iodoform. A large drainage-tube was inserted to the bottom of the opening, and the wound closed and dressed after the usual fashion. I need not weary my readers with the details of the case. Suffice it to say that all pain ceased immediately after the operation. The wound healed throughout by first intention, and at no time was a drop of pus ever present. The patient made an uninterrupted good recovery, and after a subsequent rest in the splint for six months left the home for the seaside, and has now returned to South Africa.

In conclusion, I would recommend that all cases of sacro-iliac disease where suppuration is threatening, or where pain is severe, be treated in a like manner.

New Cavendish-street, W.

ABERNETHIAN SOCIETY OF ST. BARTHOLOMEW'S HOSPITAL.—Mr. Oliver Pemberton, Professor of Surgery in Queen's College, Birmingham, on the 10th inst. delivered the introductory address on the occasion of the opening night of the session of this Society to an assembly of the staff, students, and nurses, the subject being on "The Progress of Surgery—a retrospect of forty years, and as to the measure of aid the School of St. Bartholomew afforded, both previously to and during that period."

THE

TREATMENT OF PURULENT OPHTHALMIA AND DACRYOCYSTITIS BY ANTISEPTIC IRRIGATION.

A NEW CANNULA FOR IRRIGATING THE LACRYMAL DUCT.

BY HUGH E. JONES,

ASSISTANT SURGEON, LIVERPOOL EYE AND EAR INFIRMARY.

THE object of this short paper is to show what success has in practice followed the treatment advocated by Mr. Edgar Browne for purulent ophthalmia and dacryocystitis. For the convenience of readers I have described the methods employed, and for those who may wish to try the treatment, the modifications which experience showed to be advisable. I am indebted to Mr. Richard Williams for permission to add two of his cases of gonorrhœal ophthalmia to those of Mr. Edgar Browne.

In his paper on "Some Points in the Treatment of Purulent Ophthalmia"[1] Mr. Edgar Browne said that the indications for the treatment of that disease were (1) to wash away the infective material as thoroughly and as early as possible; (2) to render the conjunctival epithelium and secretions as nearly as may be aseptic. He then described his own method of following out these indications by prolonged irrigation of the *whole* of the conjunctiva with a ½ per cent. solution of trichlor-phenolate of magnesium. The apparatus used consisted of an ordinary irrigating reservoir and tube and a lid retractor made of fine silver tubing perforated with six holes in the portion which entered the conjunctival sac. No cases of gonorrhœal ophthalmia in which this treatment had been employed were mentioned in that paper, though the results obtained in urethral gonorrhœa were given.

CASES OF PURULENT OPHTHALMIA.

CASE 1.—J. G——, a man aged forty-nine, was admitted to hospital on March 12th, 1886, suffering from gonorrhœa and gonorrhœal ophthalmia complicated by ulceration of the cornea. The lids were painted once with the nitrate of silver lotion (ten grains to the ounce). The conjunctiva was irrigated daily with trichlor-phenol solution. On March 17th the ulcer was healing. On the 22nd the discharge had quite stopped. The patient left well on the 30th.

CASE 2.—J. T——, a man aged thirty, was admitted to hospital on July 27th, 1886, suffering from gonorrhœal ophthalmia, complicated by a perforating ulcer of the cornea. The conjunctiva was irrigated three times a day with trichlor-phenol solution. By Aug. 4th the cornea was healing. There has been no extension of the ulcer since the patient's admission. On Aug. 13th the discharge had ceased. Cornea healed.

CASE 3.—M. P——, a woman aged thirty-eight, was admitted to hospital on Aug. 30th, 1887, suffering from gonorrhœal ophthalmia and deep marginal ulcer of the cornea. The lids were painted, on admission, with the nitrate of silver lotion (twenty grains). Afterwards the treatment consisted simply of irrigation with Panas' solution of biniodide of mercury, and the instillation of eserine. The ulcer began to heal on the day after admission. The patient was discharged on Oct. 18th. The ulcer had healed perfectly without perforation, and there was no permanent impairment of the vision. The long stay in hospital is accounted for by the patient's destitute condition and the depth of the corneal ulcer.

CASE 4.—M. C——, a woman aged twenty-three, was admitted to hospital on Dec. 3rd, 1887, suffering from gonorrhœal ophthalmia and deep marginal ulcer in the right eye, syphilitic iritis of the left, and well-marked syphilide on face and ulceration of tongue. The right eye was irrigated three times a day with Panas' solution, and the cornea dusted with powdered iodoform; the left eye was atropised. The ulcers of the tongue were touched with ac. hydrarg. nitratis and oleate of mercury ointment (10 per cent.) rubbed into the axillæ. The corneal ulcer began to heal the second day. On Jan. 20th the ulcer was quite healed. No discharge. Vision equals $\frac{20}{30}$; Jaeger 1, each eye.

Remarks.—With regard to the antiseptic solutions used,

[1] Meeting of the British Medical Association, Belfast, 1884.

we found that Panas' solution of biniodide of mercury caused much less smarting than the trichlor-phenol (even when the latter was used as a ½ per cent. solution), and that though the treatment occupied a longer time, the final result was quite as good. In Case 1 Mr. Edgar Browne's irrigating lid retractor was used; in the other three I used an ordinary Eustachian catheter bent to a suitable angle, and found that, when passed well up into the conjunctival sac and moved slowly from one end to the other, it acted as well, or nearly as well, as the more elaborate special instrument.[2] In all the cases ulceration of the cornea had set in before admission to hospital, and in all healing began within a few hours of the first irrigation. The discharge was always much less on the second day, and ceased entirely within a fortnight, so that the patients could be transferred to the general wards. In all the cases I have seen treated by the older methods (nitrate of silver, iodoform, &c.) ulcers have gone on spreading until the discharge had nearly stopped, causing very severe permanent mischief to the cornea, and in some cases total loss. Irrigation was also found very useful in many cases of strumous and membranous ophthalmia, and in some of sloughing ulcer of the cornea with chronic conjunctivitis. In ophthalmia neonatorum, though shortening the duration of the disease very much, it was too troublesome and painful to be made the routine practice.

CASE 1.—A. B——'s (aged two years and a half) eyes became inflamed on June 30th after an attack of diarrhœa. No exanthem. The patient was admitted to hospital on July 5th, suffering from severe membranous conjunctivitis and keratitis. The treatment consisted of irrigation with Panas' solution, iodoform ointment, and gtt. atrop. (two grains to the ounce). On July 6th there was ulcer of the cornea. On the 8th the swelling of the lids had subsided, the membrane had disappeared from the conjunctiva, and the ulcer was healing. The patient was discharged well on July 13th.

CASE 2.—K. G——, aged two weeks, suffering from ophthalmia neonatorum, was seen on June 25th as an out-patient. The conjunctivæ were irrigated with trichlor-phenol. The irrigation to be repeated daily. On June 29th the discharge had quite stopped. The patient was kept under observation until July 20th; but there was no recurrence of the discharge, though the treatment was limited to four irrigations.

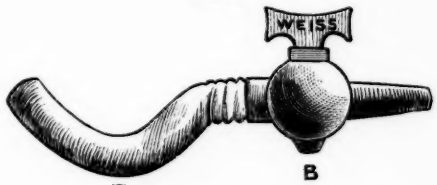
DACRYOCYSTITIS.

In 1886 Mr. Edgar Browne,[3] recognising the important part played by pyogenic cocci—as shown by the researches of Sättler and Widmark—in diseases of the lacrymal sac and duct, applied the principle of irrigation to the treatment of lacrymal disease. As house surgeon it fell to my lot to carry out the details of the treatment. The object to be attained was practically the same as in gonorrhœal ophthalmia—viz., to wash away the discharge and to render the mucous membrane and its secretion aseptic without damaging the epithelium or aggravating the existing inflammation. In the first few cases an ordinary No. 1 gum-elastic catheter, to which the irrigator tube was attached, was passed down the lacrymal duct and trichlor-phenol solution (about ½ per cent.) used; but this was never a very satisfactory arrangement, as it was difficult to pass the catheter, and the solution caused very severe smarting. In all the cases recorded here the following was the method adopted. 1. The lower canaliculus was slit up sufficiently to admit a moderate-sized probe (except in some cases of lacrymal abscess, where the external opening rendered this unnecessary). 2. Weber's stilette and cannula (made by Matthieu, and figured in Juler's "Ophthalmic Science and Practice") were then introduced into the sac, the stilette withdrawn, the irrigator tube attached to the cannula, and about half a pint of Panas' solution run through. 3. Next day, supposing the sac not to be too acutely inflamed, a probe was passed, and afterwards the whole tract irrigated, the cannula being passed down the duct. In chronic cases, where the discharge was too thick and viscid to yield to ordinary means, about a pint of a ten-grain solution of bicarbonate of soda was used before the Panas' solution. 4. When a stricture existed a larger cannula was used every day until the stricture was sufficiently dilated. 5. During the process of irrigation it is necessary for the patient to hold his mouth wide open, for obvious reasons.

[2] A hollow irrigating speculum has been invented by Mr. Treacher Collins (vide THE LANCET, vol. i., 1885). [3] Practitioner, Jan. 1887.

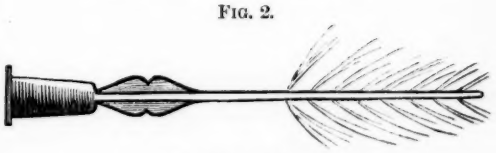
The following objections to the instrument will probably occur to every ophthalmic surgeon: 1. If at all strongly curved, the withdrawal of a stiff, closely fitting stilette must be a difficult and jerky process. 2. If the cannula is introduced up to the hilt, the fluid irrigates not the lacrymal sac or duct, but the nasal mucous membrane. 3. If the cannula be withdrawn ever so slightly, it cannot, owing to its open end, be replaced without reintroducing the stilette. To avoid these difficulties, I got Messrs. Weiss and Son to make a cannula closed and rounded at

FIG. 1.



A, Rubber tubing from reservoir. B, Stopcock.

FIG. 2.



Cannula (small bore).

the distal end, and pierced along the sides by small holes for about one inch of its length. The proximal end was made to fit the tapering nozzle of a small stopcock. No stilette is required, for this cannula can be withdrawn and reintroduced to any extent with perfect ease and without detaching the stopcock; it, moreover, irrigates the whole of the sac, nasal duct, and part of the nasal fossæ at the same time. I used this cannula daily for four months. It serves its purpose admirably, and is kept clean quite easily.

CASE 1.—R. M——, aged thirty-seven. Seven months ago the patient had muco-purulent discharge from the lacrymal duct for three months, culminating in an abscess of the sac. This was followed by mucocele (four months), on account of which he came to the infirmary on Nov. 5th, 1886. The lower canaliculus was incised and a probe passed. On Nov. 6th, 7th, 8th, 12th, 14th, and 16th the duct was irrigated with Panas' solution. On the last-mentioned date the patient was quite well, there being no discharge or epiphora. In reply to questions, he wrote on Feb. 20th, 1889, saying that there was a slight watering of the eye six months after his last attendance, but that there had been no recurrence of the mucocele or abscess. The duration of treatment was eleven days; the number of irrigations six.

CASE 2.—E. A——, aged forty, was seen as an out-patient on July 2nd, 1886, with lacrymal obstruction and blennorrhœa. On July 2nd the lower canaliculus was slit. Probes were passed and boracic acid collyrium was used regularly until Oct. 25th, 1886—i.e., 114 days. From Oct. 25th and every day until Nov. 4th irrigation was practised. On Nov. 4th the mucous membrane was perfectly smooth and there was no discharge or epiphora. The patient remained under observation until Jan. 24th, 1888, without further treatment (except for mixed astigmatism and squint), during which time no recurrence of epiphora took place. Duration of treatment by irrigation eleven days.

CASE 3.—D. B——, aged twenty-six, was admitted to hospital on Jan. 25th, 1887, suffering from an old lacrymal abscess with recent recurrence. The abscess was incised. On Jan. 26th and 27th the abscess was irrigated, and the patient went home. On Feb. 1st fresh inflammation and discharge from the sac supervened. On the 4th the swelling subsided. As the patient lived at a distance, it was not possible to irrigate the duct oftener than once a week, and sometimes a fortnight elapsed without any treatment being applied. On March 4th rough bone was felt in the upper part of the duct. The patient ceased attending on April 19th. On this date he was quite well; no swelling or discharge, and duct smooth. During the whole of 1887

and 1888 the patient was seen at intervals of three or four months. Sometimes a probe was passed to test the patency of the duct, but no sign of stricture was ever discovered. Duration of treatment eleven weeks; number of irrigations about twelve.

CASE 4.—E. Q——, aged thirty-three. Lacrymal obstruction and blennorrhœa off and on for two years. Threatening abscess. On Aug. 5th, 1887, the canaliculus was slit and probes were passed. The blennorrhœa continued undiminished until Sept. 9th, when irrigation was begun and carried out daily until Sept. 20th, when the patient was quite well. In answer to questions, the patient wrote on Feb. 20th, 1889, that there had been no discharge from, or watering of, the eye since her last attendance in September, 1887. Duration of treatment by irrigation eleven days.

CASE 5.—W. S——, aged twenty-eight. Epiphora for three years, followed by mucocele. The canaliculus was slit and irrigation performed on Oct. 19th, 1886. The irrigation was repeated on Oct. 22nd, 24th, and 26th. On Nov. 19th the patient was quite well. Duct irrigated. Jan. 18th, 1887 (i.e., after two months), there was some thickening over the lacrymal sac, but no epiphora or discharge. On Feb. 20th, 1889 (i.e., two years and three months after cessation of treatment), the patient wrote to say that he was quite well. Duration of active treatment seven days; number of irrigations five.

CASE 6.—J. H——, aged sixty. Lacrymal abscess; ozæna. On May 20th the lower canaliculus was slit, and probes passed daily, without any improvement, until June 17th. The duct was then irrigated with bicarbonate of soda lotion, followed by Panas' solution. This was done once a week until July 22nd, when the discharge had entirely stopped. I was unable to trace this patient, so that I cannot say how long he remained well.

CASE 7.—A. M——, aged thirteen. Abscess of lacrymal sac. The abscess was incised, and irrigated daily for nine days. Two years later the patient was perfectly well. No recurrence of abscess or epiphora.

Remarks.—It may be asked whether this treatment has any lasting effect upon the stricture which, in many cases, has caused the mucocele or abscess. Cases 2 and 4 seem to me to show that it has, and the large number of cases treated during two years and a half have left a firm impression on my mind that the good effect is more permanent than in cases treated simply by the knife and probe, and that the formation of a stricture is more frequently prevented than by the ordinary methods of treatment, including the injection of astringents. Irrigation gains additional value from the fact that by it the nasal mucous membrane is treated simultaneously with that of the nasal duct and lacrymal sac, which must be of considerable importance in cases arising from or complicated by nasal catarrh or ozæna. I find that I have inadvertently included one or two cases which were mentioned by Mr. Edgar Browne in his paper in the *Practitioner*, but as they were then quite recent, and as I have since been able to trace them up to 1889, I have allowed them to remain. Many more cases might be given, but I think the above are sufficient to prove that the treatment advocated yields good results easily and rapidly.

P.S.—Since the above paper was written Mr. Treacher Collins has told me that during his house surgeoncy at Moorfields he used a cannula similar to the one described above, with a syringe. I am inclined to lay some stress upon the advantage of using an irrigating reservoir instead of a syringe.

Liverpool.

SALFORD ROYAL HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 10th inst. in the board-room of the hospital, there being a good attendance. The report showed that during the past year 15,314 patients had been treated, against 14,152 in the previous year and 13,101 in 1887. The income had been £4826 and the expenditure £5955, leaving a deficit of £1129. The board had made an important modification in the way of admitting out and home patients in districts where there were few or no subscribers to the charity, and where there was consequently considerable difficulty in obtaining recommends. They had provided printed forms, which when signed by two householders certifying that the individual was a proper object of charity, entitled the applicant to medical assistance. The report was adopted.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON ANTIPYRIN.

BY ADOLPHUS J. RICHARDSON, M.A., M.D. CANTAB.,
ASSISTANT PHYSICIAN TO THE SUSSEX COUNTY HOSPITAL.

THE note on Antipyrin in THE LANCET of Aug. 17th, 1889, by Mr. Wingrave, induces me to give some details of its administration in a series of ninety-six cases, of which I have notes more or less complete. In only four of these has any bad effect been attributed to the drug. In a pregnant woman suffering from left-sided hemicrania, twenty minutes after she had taken ten grains an itching "white raised rash" appeared, diagnosed by a chemist as due to mussel poisoning. She had, however, taken nothing to which I could attribute it save the antipyrin. A patient with tabes dorsalis, after taking twenty grains fainted away, and is said to have lain insensible on the floor. One patient vomited after a dose of twenty grains, and one after a dose of ten grains; both, however, took it during a paroxysm of migraine, so it is very probable that the drug was not wholly to blame. In only the two above-mentioned cases was a larger initial dose than ten grains employed; I shall not repeat it. Thirty-eight of the cases were typical migraine; in nearly all I ordered ten-grain doses, to be repeated in an hour if the pain did not abate. In thirty-two cases the improvement was definite, in two doubtful, and four were unbenefited. In the successful cases, as a rule, not only were the paroxysms relieved, but their frequency was diminished. In three after a time the power of the drug seemed to fail, but an increase of the dose to fifteen grains produced the initial good result. In some cases, although the paroxysms were always relieved, their frequency was in no way affected. In none was the frequency increased. In two of the cases peptonuria was constant; both were relieved as to the migraine. The condition of the urine was observed in intervals as well as in paroxysms. Of the four cases in which the drug failed, one had, I believe, mitral obstruction, through which the migraine might have been aggravated; one vomited the antipyrin, probably before any therapeutic effects could have been obtained; the other two cases were both definitely hemicranias, and I have sometimes been tempted to think that the more definitely the migraine conformed to this type the less good was to be expected from antipyrin. In sixteen cases of head pain, some of which I could not explain at all, and none of which were markedly typical, the drug relieved in eight. A very different proportion to that on migraine, showing that the administration of the drug in a purely symptomatic manner meets with no undeserved success.

To detail the cases in which it failed:—1. Headache in anæmia, with possible gastric ulcer. 2. Violent vertical headache, possibly syphilitic. 3. Headache, associated with astigmatism (unrelieved by glasses) and gastralgia; improved under arsenic. 4. Vertical headache in a phthisical patient. 5. Rheumatism of scalp. 6. Continuous headache "all her life." 7. Temporal headache, possibly middle-ear disease. 8. Temporal headache.

In three cases of anæmic headache in chlorotic patients, contrary to my expectation, the drug relieved. These were not cases of migraine in chlorotic girls, but were headaches which were worse in the morning, unaccompanied by sickness or visual phenomena, and which got better as the day wore on, or on lying down. In four cases of tabes dorsalis, with lightning pains, my administration of the drug met with the most favourable results. All now invariably keep it ready for immediate use. One of the patients suffered from the most distressing nocturnal rectal tenesmus; on this the drug, although tried repeatedly, had no effect, but his lightning pains, of the most severe description, were at once relieved. Four times I have ordered ten grains to be taken at the onset of an attack of asthma nervosa, in all without any relief of the spasm. In three cases of facial neuralgia (in none of the patients was there any dental caries), one was much relieved and two but slightly; and it

is noteworthy that the most successful case had previously taken in vain croton-chloral hydrate and tinctura gelsemini, whereas one of the but partially successful cases was at once relieved by croton-chloral hydrate. Unfortunately, I know of no difference between the cases. In one case of brachialgia great relief was experienced after a vast variety of drugs had been futilely exhibited. One case of paroxysmal sneezing and two of severe pain in the feet with no apparent cause were relieved.

Hove.

SUICIDE APPARENTLY BY AN ATTEMPT TO CUT OFF THE HEAD FROM BEHIND.

By JAMES LITTLE, M.D.

I NOTICE in THE LANCET of June 22nd, the record of a case under the care of Mr. Hulke of suicide apparently begun by an attempt to cut off the head from behind. The forensic interest attached to this case induces me to publish the details of an even more determined case which occurred in my practice on July 2nd, 1879.

The case was that of a woman, aged thirty-six, who had been discharged apparently cured about a week before from Garlands Asylum, where she had been an inmate about three months, with the symptoms of puerperal insanity. About 8 A.M. on the above date the daughter of the patient came for me saying that her mother had attempted to commit suicide, and on arriving at the house I met a ghastly spectacle. She had a knife in her hand, and on the back of her neck was a huge wound, which had apparently taken half her head off. It had gone through skin, muscles, ligaments, the very bone itself, and had opened into the spinal canal, but had not touched the cord. The head itself, having lost all its connexions at the back, was bobbing about in a manner that would have been ludicrous had it not been so ghastly. The instrument was a blunt and rusty table knife, with which she had been peeling potatoes. On being questioned as to her object in committing suicide, her only reply was that she did not know. Such treatment as was possible was applied, but she died on the sixth day from septicæmia. No post-mortem was obtained.

The chief interest of the case lies in the fact of the wound having undoubtedly been committed by herself, and in the very determined manner in which she had set to work apparently to decapitate herself.

Maryport.

ACUTE PEMPHIGUS RESULTING FROM THE INHALATION OF SEWER AIR.

By MARK STYLE, L.R.C.P.I., M.R.C.S.

I HAVE lately had under my care two cases of what I have ventured to call acute pemphigus, which I attributed to poisoning from sewer gases. Both cases occurred in children, aged five and two years respectively. On being called to the elder child, my first patient, I was informed that he had been ailing for the past fortnight or so, losing colour and appetite. On the previous day two blebs appeared, one on the sole of the foot and another on the shin of the same leg. During my attendance others followed at irregular times during the following fortnight, chiefly on the thighs and legs, and two or three on the abdomen. There was some irritation from them, accompanied by febrile symptoms, anorexia, and constipation. The younger child's was a milder but similar attack, having only two or three bullæ, which did not recur after the first week.

The treatment I adopted was quinine internally, an occasional alterative powder, baths of warm oatmeal and water, and zinc ointment and calamine lotion locally. I find that Hebra and other authorities deny the existence of acute pemphigus, but class all acute bullæ as erythema bullosa, although since several cases have been reported. In my cases there was no erythema; each bulla was distinct, and until it attained some size had no inflammatory redness, even in the immediate vicinity; there were no smaller vesicles, as in herpes; nor was the skin of the part markedly red, as in erythema bullosa. I believe, too, that erythema bullosa occurs chiefly on the trunk and upper extremities; in both my cases the upper extremities were free. As both mother and nurse were particularly careful about the children's diet, which consisted mainly of milk and farinaceous food, I was rather at a loss to account for the presence of the eruption, until on making inquiries I found that a nasty smell had been noticed several times in the passage immediately outside the nursery. On inspecting the bath-room, situated just outside the nursery door, I found that the housemaid's sink was acting as a very efficient ventilator to the main sewer, the overflow pipe from the bath was joined to the down pipe from the sink, and although it had a U bend in it, which probably contained no water, as the bath was little used, there was a clean cut into the lumen of the pipe between the trap and the sink-pipe, so that we had a constant stream of sewer emanations entering the warm nursery by night and day. I concluded from my discoveries that this most insanitary condition of things was the cause of the illness; at any rate the evil was quickly remedied, and the children were soon well again. I may add this house was let with "all the latest sanitary improvements." If these cases were not cases of "acute pemphigus," may I call it pemphigus with acute symptoms?

Bromyard.

HIGH TEMPERATURE IN CHILDREN.

By W. J. TYSON, M.D.

IT is a well-known clinical fact how quickly the body temperature changes in children, and without this knowledge we should be constantly alarmed; yet I am afraid most of us do not really appreciate the above condition until we have been some years in practice. The cases that I am particularly referring to are those in which one is called to at night, with a temperature of 102° to 104°, pulse varying from 100 to 150, but the respiration, as a rule, not increased in the same ratio. On visiting the child the next morning the temperature is normal, or even subnormal, and the child apparently perfectly well. Some men will say that the medicine ordered, such as tincture of aconite, in drop doses frequently, a cooling saline, or a little grey powder, has been the means of lowering the heat. This may or may not be so, but my object in sending this note is rather to seek for a cause of the temperature than for the treatment of it. The most common cause is probably, I suppose, some form of error in diet, the offending food acting as an irritant upon the heat centre; another common cause is, I think, really a sunstroke; children in playing constantly throw off their caps and hats, and are exposed to the sun for many minutes. Doubtless there are other causes, but the above are the ones most commonly met with. The prevalent practice of people keeping their own clinical thermometers leads, in my experience, to the seeking of professional advice rather than the avoidance of it.

Folkestone.

A SIMPLE REMEDY FOR THRUSH AND SORDES.

By W. THEOPHILUS ORD, M.R.C.S., L.R.C.P.,
LATE RESIDENT SURGEON, BIRMINGHAM GENERAL DISPENSARY.

AMONGST the ill-fed children of the poorest residents of our large cities thrush is an extremely common and troublesome complaint. The following lotion, to be applied frequently with a feather or brush to the white patches, kills the oïdium albicans more quickly than any other I know, and removes the patches after a few applications, leaving healthy mucous membrane. It consists of equal parts of lotio nigra and glycerine mixed. I attribute its action to the germicidal power of the mercury. The quantity used is so small as to be quite harmless. Another condition in which I have found the same lotion invaluable is in that of the sordes which collect so abundantly on the teeth, lips, and tongue in many cases of enteric fever. It cleans these parts as if by magic, and renders that unpleasant process known as "scraping the tongue" quite unnecessary. It may also with advantage be painted over the fauces &c. in those unhealthy conditions of the throat which are so common in typhoid. I tried it in one case of catarrhal stomatitis, but it had no effect, whereas chlorate of potash effected an immediate cure. Also in the sordes of advanced phthisis it seems to be of no use. Not having seen this lotion mentioned in any book, and having found

it superior to any of the usual preparations in use for these affections, I venture to bring it to the notice of the profession, in the hope that it may prove as great a boon to other practitioners as it has been to myself.

Bournemouth.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

PADDINGTON INFIRMARY.

TWO CASES OF HYSTERIA IN THE MALE; REMARKS.

(Under the care of Dr. SAVILL.)

WE give below two instances of the development of hysteria in the male subject, a condition which, as we have already said in the editorial notes of a previous case,[1] is not frequently met with in this country. Dr. Oliver[2] says that he has frequently witnessed its evolution as a traumatic sequel in the apparently robust and energetic labourer, and also adds that in both sexes it is a most intractable disorder, but is more amenable to treatment in the female than in the male. The ages at which this condition is most usually met with in males are about fifteen, or from thirty-five to fifty. We need not mention the special points of interest in these cases, as they are fully indicated by Dr. Savill in his remarks.

CASE 1.—James W——, aged thirty, a valet by occupation, was admitted into the infirmary on July 19th, 1889, complaining of general weakness, occasional sickness, giddiness, and obscure neuralgic pains in various parts of his body, which could not be associated with any objective signs. Indeed, he was a tall, well-built healthy-looking fellow, without any trace of effeminacy. His expression of face was rather suggestive of cunning. The thoracic and other viscera were normal and the testicles were normal in position and size, but on examining the abdomen there was marked hyperæsthesia all over. This hyperæsthesia extended a little way over the costal arches, and downwards over the front of the thighs. It was very accentuated over the inguinal region of both sides, and moderate pressure over this spot, which is known in the female as the ovarian region, gave rise to a choking sensation in his throat, sighing respiration, cries of "Oh, dear!" arching of the back into a condition of opisthotonos, and violent convulsive efforts to remove the pressure, followed by profuse perspiration and exhaustion. The tactile sensation in other parts of the body was normal, and there was no paralysis; but when Mr. Henrey tested the field of vision a few days later there was found to be a well-marked general retraction on both sides, and the field of vision for blue was smaller than the field for red—the order being from without inwards, yellow, red, green, blue; instead of blue, yellow, red, green, as in the normal eye. The fundi appeared healthy. Upon inquiry, he told us that he had been subject to nervous or "fainting" attacks all his life. These attacks occurred as often as every week or two, and would come on after "nervousness," or excitement from any cause. An attack commenced with profuse perspiration, then he would fall down, though without complete loss of consciousness, and after about ten minutes he came round, crying or laughing; an attack, he told us spontaneously, "brings on a bit of hysterics." On one or two occasions he had passed urine involuntarily, and often "ground his teeth," but never bitten his tongue. His mother, his aunt, and his only living brother had been subject to the same sort of nervous attacks. The patient himself had been a heavy drinker, and had indulged in sexual excesses from an early age, but otherwise there was nothing important in his previous history. No specific line of treatment was adopted, and he left the infirmary well on Aug. 14th.

Remarks.—The case presents a typical example of "ovarian phenomena," hysterical dyschromatopsia, and "faintings" in the male subject. In the case of this man, as in one previously narrated,[3] there was a previous history of venereal excess, and also a family history of the hysterical diathesis.

CASE 2.—Charles H——, aged fifty-five, a greengrocer, was admitted into the infirmary on June 7th, 1889. He appeared at first sight very ill, and wore a most distressed unhappy look, an aspect which he never lost and which was in keeping with the gloomy view he took of life. He told us in a whining tone of voice, and with much detail, that his illness dated from an injury he had received to his right ankle twenty-four years ago, that his right leg had been "paralysed" ever since, causing him to walk with a stick or crutch, although he managed to carry on his work; and that his left leg had gradually become paralysed without apparent cause eight months before, since which time he had taken to bed. There had been no incontinence. All his life he had suffered from headaches, had been very "nervous" and easily put out. He had lately been subject to attacks of "hot flushings," followed by "cold shivers" and trembling. In other respects his previous and family histories were negative. On examination, we found that he had a flaccid paresis of both lower extremities, more marked in the right; though it was by no means complete in either, for, or being held up on both sides and told to walk, his legs were thrown out and moved rapidly to and fro in the air like a paddle-wheel out of water. No paralysis elsewhere, but marked wasting of all muscles, especially of the right leg (the one injured), which measured one inch less in circumference than the left. Besides this atrophy no evidence could be discovered of the old injury. Upon striking any muscle or tendon of the body or limbs a very prompt and marked reflex could be obtained. A moderate tap on the patellar tendon of one side would produce a jerk not only in the leg, but also in both arms. Repeated blows of greater force were followed by a transient stiffness of the leg. Reflexes could be obtained also at the wrist, elbow, and lower jaw. Ankle and knee clonus were very marked on both sides, but clonus could not be obtained in the lower jaw. No inguinal tenderness or alteration of sensation. Field of vision not tested. He suffered very much during the first few weeks after his admission from severe frontal headache, but this subsided without treatment. He also had many pains in different parts of the body. We often had an opportunity of observing what the patient meant by "hot flushes and cold shivers." An attack would come on after some excitement, such as the doctor's visit, or perhaps without any cause. The face, and sometimes other parts of the body as well, became red and looked hot, though it did not feel so to the hand; next there would be profuse general perspiration. At this time the patient stated he felt cold, and there was occasionally some shivering. The whole lasted only a few minutes. Beyond the above symptoms no abnormality was discovered, the viscera were healthy, and the temperature was always normal.

The main treatment adopted was eminently psychical. In the infirmary he was of course removed from the conditions under which his disease had arisen, and a strict limit was placed on the visits of sympathetic friends. The patient was daily persuaded that if he only tried sufficiently he would be able to walk. At first this was only done by holding him up on both sides, then on one side; by-and-bye he succeeded with two sticks, then with one, and at the end of a month he was able slowly to walk the length of the ward alone. He was also placed on a liberal diet, given bark and acid internally, and had cold shower baths daily during the last month of his stay. He was discharged able to go to work on Aug. 9th, after two months' treatment, though he still limped slightly with the right leg, and there were still slightly increased tendon reflexes and occasional flushings.

Remarks.—The leading features in the case are: paresis of the lower extremities, irritability of all muscles and tendons, and attacks of flushing, followed by profuse perspiration. That the symptoms presented by this patient were not due to any gross lesion of the nervous system is sufficiently demonstrated by the absence of other symptoms usually associated therewith, and by the speedy cure (albeit after so long a duration) under psychical treatment, shower-baths, and tonics. Not the least interesting feature in the case is the occurrence of the flushings and sweats—

[1] THE LANCET, vol. i. 1889, p. 934. [2] Brain, vol. ix., p. 219. [3] THE LANCET, vol. i. 1889, p. 934.

due obviously to some vaso-motor disturbance,—as showing the identity of the great neurosis (hysteria) in the two sexes. This symptom no doubt frequently escapes notice in the male, but is often very pronounced in the other sex, especially at the climacteric. I have described this case under the heading of hysteria, but there are two conditions—*species* of the neurosis—to which the case is undoubtedly allied, if not identical. (*a*) The *hypertonic* paresis described by Dr. Hughes Bennett.[4] In the cases to which this author refers the main features are paresis and exaggerated muscular irritability to percussion in varying degrees, and the one now under consideration differs from these in no important particular. (*b*) *Strychnism*, a term used by Professor Charcot[5] to denote the hyper-excitability of the grey matter of the spinal cord, which is presumed to be the anatomical condition attended by increased tendon or muscular irritability, and, if pronounced, by tonic and clonic muscular spasm. The precise anatomical nature of the change in these cases has not yet been demonstrated. It seems to me highly probable that Dr. Bennett's "hypertonic paralysis" and Professor Charcot's "strychnism" are very closely allied to each other, and that the muscular irritability in the case now under consideration belongs to the same category, and may be hypothetically explained by the same reasoning. But, whatever be the true pathological explanation of these cases, the highest importance attaches to their prompt clinical recognition; since with very few exceptions they are readily curable under appropriate means. The second of the two cases above described had been under treatment by several doctors. From what the patient told us, it is very probable that they had recognised the nature of the case, but they were unable, owing to circumstances, to carry into effect the cardinal principle in the treatment of such cases—namely, removal from the surroundings under which the disease had arisen. The patient expressed much gratitude at his cure; but it is doubtful if it will be a permanent one, for relapses are not uncommon in such cases.

HANTS COUNTY ASYLUM.

ACUTE PERITONITIS DUE TO PERFORATION OF INTESTINE IN A CASE OF LATENT TYPHOID FEVER; NECROPSY.

THE physician to a large hospital has opportunities of seeing at intervals examples of latent, or as it has also been called ambulatory, typhoid—cases of typhoid in which the symptoms have not been sufficiently severe to make the patient consider himself ill or abandon his occupation, until the supervention of hæmorrhage from the bowels or the sudden onset of peritonitis. The patient in this case took her food as usual, and, although under daily observation, presented no signs indicative of ill health until the morning of the day preceding death; and yet the fever must have been in progress for some time. Fagge[1] says: "The date at which peritonitis sets in is usually in the third, fourth, or fifth week. Cases have been recorded in which it has been as early as the eighth, ninth, or twelfth day of the patient's illness, but in all probability the disease has then really been of longer duration"; and, in speaking of peritonitis, he points out its possible cause as perforation of a typhoid ulcer due to typhoid "entirely latent." This perforation of a typhoid ulcer and the consequent peritonitis are the most dangerous complications of the fever. Murchison gives it that in this country 1 in every 33 dies of perforation, and that it is found in a fifth of all the post-mortem examinations made on patients who have died from the effects of typhoid. The occasional occurrence of this fatal complication in cases where the fever is so mild as to avoid recognition affords the strongest additional reason for maintaining complete rest and careful dieting in all cases, and especially in those attended only by prostration and so-called low fever. For the following account we are indebted to Mr. Morgan Finucane, senior resident medical officer.

E. C——, a female aged forty-nine, was under treatment in the asylum for mania, with delusions and some dementia. She was a tall thin woman, who had never shown any symptoms of illness until two days before her death. She took her food ordinarily, suffered more or less from constipation (a complaint well known as common amongst the insane), never complaining in any manner to nurses or patients in the same ward.

July 17th.—She complained of pain in the stomach this morning, and for the first time refused her breakfast. Her removal to the infirmary was ordered. A quarter of a grain of morphia given by hypodermic injection. The temperature was 100°. Abdomen quite hard and resistant, legs drawn up, and considerable pain on the slightest movement; tongue clean and moist; no sickness or headache. Temperature, 5 P.M., 99·4°; pulse small and weak. Hot fomentations to be applied and brandy given frequently; in the evening, at 7 P.M., she showed more definite symptoms of peritonitis.

18th.—Temperature to-day 101·2°. Legs drawn up; abdomen swollen and tympanitic; great pain; face pinched and drawn; bathed in profuse perspiration; pulse small and thready; taking brandy very frequently, but is rapidly sinking; hot fomentations frequently applied; no vomiting. Died to-day at 12.15 P.M.

Necropsy (July 19th at 9.15 A.M.).—The intestines were glued together by recent lymph, the surface of them being very much injected. The abdomen was filled with recent exudation. The ileum and large intestine showed undoubted typhoid ulceration with perforation of one of the ulcers in the ileum. The spleen was enlarged, injected, and very soft. Mesenteric glands enlarged.

Remarks by Mr. FINUCANE.—This case illustrates one of the difficulties medical officers have to contend with in asylums whose sanitary condition allows of the prevalence of diseases such as typhoid. The difficulty in the recognition of the disease is doubled in the case of the insane, and it is only by the systematic taking of the temperature of every patient daily (a no mean task in an asylum containing 1000 patients) that the prevention of such an unfortunate occurrence can be secured.

ALICE MEMORIAL HOSPITAL, HONG-KONG.

ANEURYSM OF THE ANTERIOR TIBIAL ARTERY; CURE.

(Under the care of Mr. J. BELL.)

ANEURYSMS below the bend of the knee are very rare, and few having a spontaneous origin are recorded; nearly all were the result of injury, usually wounds of the calf of the leg, and arose from the posterior tibial artery. Mr. Savory and Mr. Adams[1] have each recorded a case of aneurysm of the dorsalis pedis, apparently arising independently of injury. Mr. Erichsen had met with but one case of aneurysm of the anterior tibial artery;[2] it occurred in a man the subject of cardiac and renal disease, and was situated at the lower part of the upper third of the leg. Compression was without avail, and he left the hospital uncured. The cases recorded by Mathelin,[3] Page,[4] and Jamison[5] were of traumatic origin, but are interesting from the method of treatment adopted; and of the cases of Arata and Willard given in the collection of aneurysms of the posterior tibial made by Kinloch[6] the posterior tibial was similarly diseased in both. Willard's patient suffered from renal disease, and died after compression of the femoral.

Fung A. Ki, aged thirty-eight, a Chinese coolie, was admitted on July 19th, from the out-patient department, complaining of pain about the right ankle-joint and swelling of the foot. In the line of the anterior tibial artery and an inch and a half above the joint was a globular, pulsating swelling, about the size of a small orange. The ordinary symptoms of an aneurysm were all well marked, and the artery above and below the tumour was considerably dilated. There was no history obtainable of injury or syphilis, and in all other respects the man seemed perfectly healthy. The tumour was of two months' duration. The following day a consultation of the staff was held, and it was decided to try pressure by Martin's rubber bandage, and this was done. The leg and thigh were tightly bandaged, the sac being of course left full of blood. The knee was forcibly flexed and tied in this position. With the help of hypodermic injections of morphia this was kept on for five hours, but without any effect. Next

[4] Brain, Parts 34 and 38.
[5] Lectures on Diseases of the Nervous System, vol. iii., New Sydenham Society's Translation, pp. 37, 113, and 119.
[1] System of Medicine, vol. i., p. 180.

[1] System of Surgery. Edited by Messrs. Holmes and Hulke. Vol. iii., p. 132.
[2] Science and Art of Surgery, vol. ii., p. 256.
[3] Archives de Méd. et Pharm., 1887.
[4] THE LANCET, vol. i. 1887, p. 522.
[5] New Orleans Medical Journal, 1888.
[6] Journal of the American Med. Assoc., 1881.

day Mr. Bell applied the same treatment for three hours, but on removing the bandage the pulsation was as distinct as ever. On July 23rd Martin's bandage was again applied, and Esmarch's tourniquet over the femoral above the bandage, the whole limb being wrapped in cotton wool. The pain was very severe, notwithstanding hypodermic injections of morphia, and after about an hour Dr. Thomson very kindly kept the patient under chloroform for an hour and a half. The tourniquet and bandage were then removed, and the students in relays kept up compression of the femoral for seven hours. All pulsation ceased on the application of the tourniquet, and never recurred. The patient was kept in bed, and for a few days wore a McIntyre's splint, to prevent his walking about the ward. At the end of a week he was allowed out for an hour on business, but stopped out all day, and returned at night none the worse for the exercise. On Aug. 19th—twenty-six days after all pulsation had ceased—he was discharged cured. The tumour was quite firm, and had shrunk to less than one quarter its original size. The rarity of this form of aneurysm may be judged from the fact that none of the nine medical men who were present at the consultation had ever seen a case before.

Medical Societies.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the first meeting of the session, Oct. 10th, the PRESIDENT (Dr. Gwynne) delivered the opening address, upon the subject of "The Children of the Poor and their Diseases." He pointed out that the diseases generally observed among hospital patients can be in the main referred to either the scrofulous, the tuberculous, or the rachitic diatheses, and maintained that these various types of disease had their origin in the unhealthy conditions under which children are reared. He sketched out in the case of these three main types the relationship that subsisted between the causes that produced them and the effects produced. He maintained that, as society did not discountenance, but rather encouraged, immature and reckless marriages, the children of such marriages had a substantial claim to look to society for their protection. He deprecated the illogical expenditure of money by charitable organisations in rescuing individual victims, and the utter neglect of the causes that produced such lamentable results. He showed how inadequate medical art was to deal with the enormous mortality among children, and the vast amount of disease that resulted from causes that were in the main preventable. He pointed out the want of systematic instruction in the diseases of children at the medical schools, and recommended that attendance on a course of lectures on this subject and bedside instruction in the children's wards should be made compulsory on all candidates for medical degrees. To check the reckless procreation of children among the pauper classes, he recommended the raising of the legal marriage age, and the imposing of other restraints that might be deemed advisable. To relieve the congestion of the population in towns, he recommended emigration and a systematic method of colonisation in such countries as Western Australia, and the establishment of industrial schools in connexion with such colonies, where children could be trained to trades and employments most suitable to the country. He predicted that the gradual massing of the population in large cities and the resulting moral and physical evils would in the future compel the consideration of such social questions.

A vote of thanks for the address was passed on the motion of Mr. Favell, seconded by Mr. Garrard.

PATHOLOGICAL SOCIETY OF MANCHESTER.

THE annual meeting of this Society took place on Wednesday, Oct. 9th, when the reports of the committee and hon. treasurer were received.

The following officers were elected for the ensuing year:—President: Dr. Dixon Mann. Vice-Presidents: Messrs. G. A. Wright and C. E. Richmond. Treasurer: Dr. H. R. Hutton. Secretary: Dr. Thomas Harris. Committee: Drs. J. Collier, A. Donald, E. S. Reynolds, A. Robinson, W. Thorburn, and R. B. Wild. Auditors: Drs. J. Hervey Jones and P. Yates.

Multiple Exostosis.—Mr. A. H. YOUNG showed preparations from a case of multiple exostosis, and Dr. THOMAS HARRIS showed a patient suffering from the same disease.

Calcified Enchondroma.—Dr. HUTTON showed a specimen of partially calcified enchondroma from the leg of a dog.

Sarcoma of Scapula.—Mr. SOUTHAM showed two specimens of periosteal (round-celled) sarcoma of the scapula. In one case, a male aged fourteen years, where the tumour was confined to the subspinous fossa, excision of the scapula was performed. The patient made a good recovery from the operation, but afterwards succumbed to a recurrence of the disease, secondary deposits occurring in the lungs, liver, and bodies of several of the dorsal vertebræ, death being due to compression of the spinal cord. In the other case, a female aged eleven years, the growth involved the whole of the scapula and encroached upon the axilla. The scapula, together with the arm and outer half of the clavicle, were successfully removed, and the patient was alive and well at the present time, which was two months subsequently to the operation.

Angina Pectoris.—Dr. OWEN showed sections from the left ventricle and aorta of a case of angina pectoris. The muscular fibres, especially those of the musculi papillares, were in a state of marked fatty degeneration. The aorta for an inch from the base and in its whole circumference was roughened internally by atheroma, which rendered the wall rather more than double its normal thickness at this part. The sinuses of Valsalva were similarly involved, and the orifices of the coronary arteries, especially that of the left, to some extent occluded. Isolated patches of atheroma occurred also on the ascending arch. The right posterior valve was roughened with deposit, but the free edge was intact. The patient, a woman aged twenty-nine, had presented distinctive symptoms of angina, and had died somewhat suddenly. There was no evidence of kidney disease or syphilis. The cause seemed due to severe strain, to which the patient had been subjected for some months previously to the onset of the symptoms.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

AT the annual meeting, held on Oct. 4th, the President, Dr. Murphy, in the chair, the hon. secretary, Dr. Oliver, read the financial report for the year. There are now 175 members in the Society. The officers were re-elected for the year.

Professor LAWSON TAIT delivered the annual oration, the subject being "Ectopic Gestation." He dwelt at considerable length upon the pathology of this condition, and showed the relationship which existed between tubal pregnancy and desquamative salpingitis. The operative treatment of the accident was thereafter discussed.—On the motion of Dr. Arnison, seconded by Prof. Philipson, a hearty vote of thanks was awarded to Mr. Tait for his address.

A banquet was held at the Assembly-rooms, Newcastle-upon-Tyne, and 140 members sat down to dinner, presided over by Dr. Murphy.

The first monthly meeting was held on Oct. 10th, the President, Dr. Murphy, in the chair. Nine new members were elected. Professor Lawson Lait was elected an honorary member.

Dr. ROBERTSON exhibited a man suffering from Cancer of the Larynx, upon whom he had performed tracheotomy in February last. There were now several sinuses above the wound leading down to dead cartilage.

Dr. DRUMMOND exhibited a man suffering from Diabetes Insipidus. Six months ago the patient was throttled by a fellow-workman. After the injury he bled at the mouth and nose. Seventeen pints of urine were passed daily, sp. gr. 1003; pulse only 60–64.—Remarks were made by Drs. Gibson, Oliver, and Redmond.

Dr. LIMONT exhibited a man suffering from Abdominal Aneurysm. The symptoms at first were pain and vomiting; now there are pulsation and well-marked bruit. He also exhibited a case of Aneurysm of the Right Carotid Artery. The physical signs were well marked. In both cases there was a history of syphilis. Dr. Limont likewise exhibited a woman suffering from Cerebral Tumour who had been trephined, with the result that she had regained conscious-

ness, the use of her right arm, and had recovered her speech. The tumour at present was again growing very rapidly.—Mr. Black, Drs. Gowans, and Drummond joined in the discussion.

Dr. OLIVER exhibited a boy suffering from Cerebral Birth-palsy. He detailed the physical signs, and dwelt upon the pathology of the affection.—Messrs. Redmond and Galloway, and Drs. Gibson, Gowans, Drummond, Murphy, Mantle, and Morison made remarks.—Dr. Limont also exhibited, with microscopical specimens, the lungs of a patient who died from Coal-miner's Phthisis.

Dr. BENINGTON read a paper on Gynæcological Work, in which he emphasised the necessity of making a careful physical examination in all cases with pelvic symptoms.

IPSWICH CLINICAL SOCIETY.

THE first meeting of this Society for the winter session was held in the Board-room of the East Suffolk Hospital on Wednesday, Oct. 9th.

Dr. CASLEY showed (1) a case of Strumous Disease of the Knee, in which arthrectomy had been performed; and (2) a case of Hydro-pneumothorax, in which the patient's condition had been much benefited by aspiration performed twice.

Mr. MYDDELTON-GAVEY read notes on a case of Alcoholic Paralysis.

Mr. JULER, F.R.C.S., read a paper on the Value of Ophthalmoscopy in Medical and Surgical Diseases, and specially dwelt on the importance of headache as a symptom of ametropia. He also demonstrated the methods of correcting errors of refraction by retinoscopy.

Notices of Books.

Elements of Pharmacy, Materia Medica, and Therapeutics. By WILLIAM WHITLA, M.D. Fifth Edition. London: Henry Renshaw. 1889. — Although this work appears under a familiar title, and is issued as a fifth edition, it has very obviously received considerably more attention at its author's hands than might have been anticipated. A large portion of the book has been entirely rewritten and several new features have been introduced which will greatly enhance its value. In addition, the arrangement of the different sections is altered. An index to the B.P.C. formulæ has been appended in small type, and the section devoted to non-official remedies has undergone very careful revision. In a concise form this book presents much valuable information, and will probably continue to be of service to intelligent students and to busy practitioners; the former will find that the arrangement facilitates their studies, while the latter may use it to refresh their memories upon subjects acquired in their student days, or to keep abreast of recent combinations and innovations.

Chemistry: General, Medical, and Pharmaceutical; including the Chemistry of the British Pharmacopœia. By JOHN ATTFIELD, F.R.S., &c., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, &c. Thirteenth Edition. London: Gurney and Jackson. 1889.—Thirteen editions, English and American, in twenty-two years would place any book in the front rank of contemporary literature. Dr. Attfield's book is so well known that it needs no praise of ours, but we must once more commend it as one of the clearest, fullest, most accurate, and most generally useful scientific handbooks that any country can boast of. In spite of its compactness and moderate price, it is within its limits an encyclopædia of practical and theoretical chemistry. In the new edition the fame of the book has been well maintained by the revision of old and the incorporation of new matter. Among the additions we notice particularly the interesting account of ptomaines (p. 593), and of the sulphonic compounds, which have recently become so interesting because so important. Saccharin is already well known to be the sulphonic imide of benzoyl, but the new hypnotic, sulphonal, is a comparative stranger. For a wonder, it is not a coal-tar derivative, but boasts for its parents mercaptan and acetone, and for its scientific name, diethylsulphon-dimethyl-methane, or in symbols, $C(SO_2C_2H_5)_2(CH_3)_2$. We have recently had experience of its value in a case of advanced phthisis in a child of thirteen, who for a considerable time obtained refreshing sleep from it without a sign of subsequent ill effect. Dr. Attfield has greatly increased the value of his admirable book by the enormous index, comprising nearly 9000 references, which he has appended to it.

Hints to Travellers, Scientific and General. Edited for the Council of the Royal Geographical Society, by DOUGLAS FRESHFIELD, Hon. Sec., and Captain W. I. L. WHARTON, R.N., F.R.S., Hydrographer to the Admiralty. Sixth Edition. Pp. 430. London: The Royal Geographical Society. 1889.—This is the sixth edition of an excellent work first published in 1854. The information on the various subjects treated has been brought up to date by men in every respect competent for the duty, and whose names are a sufficient guarantee for its accuracy and value. While originally intended for explorers of countries little and imperfectly known, there is much in it, in its present form, which will be found useful for travellers in more civilised regions who wish to make their travels pleasant and profitable in the way of increasing their knowledge. The advice given by Mr. Freshfield in the preliminary hints may be usefully studied by all who go abroad, whether on duty, for amusement, or in search of health, as it may enable them to avoid much annoyance and thus enhance the pleasures of foreign travel. The medical hints by Surgeon-Major Dobson, late of the Army Medical Staff, deserve the careful consideration especially of those who are about to visit countries where medical aid is not easily to be obtained. We miss, however, in his remarks upon the general feeling of lassitude often experienced after prolonged physical exertion a reference to the value of small doses of opium, at least in cases where the strain is likely to be only temporary; nor does he notice the beneficial results obtained from the hypodermic administration of quinine in the graver forms of sunstroke. We recommend the "Hints" strongly to the notice of all vacation travellers and tourists who desire to increase their knowledge and add to the enjoyment of their leisure.

Father Damien, a Journey from Cashmere to his Home in Hawaii. By EDWARD CLIFFORD. London: Macmillan and Co.—It does not fall to the lot of everyone to visit a leper settlement, and to be the means of conferring pleasure on the inhabitants, but this Mr. Clifford, the well-known artist, has been able to do, and to make use of his advantages by writing an interesting little book on Father Damien and his work among the lepers. The substance had already appeared in three articles in the *Nineteenth Century* minus the introduction. Mr. Clifford went out to Molokai with gifts from various people for the afflicted population. He says there is no doubt leprosy has assumed a milder character of late years in the Sandwich Islands, and that as a rule lepers do not suffer severe pain. The length of life usually is four years from the commencement of the disease, after which time it generally attacks a vital part. Mr. Clifford induced Father Damien to try gurjun oil, with marked beneficial results; his appearance was much improved, and after a short time he slept better, and was able to sing, but the disease was too far advanced to be cured. It is well known how beneficial gurjun oil has been amongst lepers in the Andaman islands. Mr. Clifford draws attention to the terrible dangers of leprosy incurred by the natives of India. He quotes Mr. Kirkman, who denounces the defective regulations on leprosy in India.

Lepers sit about rubbing their sores on the railings of the Elphinstone High School, and school being over, scores of boys sit and lean on these very railings. Lepers also perform their ablutions in the same tank as healthy people. Surely the self-devotion of Father Damien and others who devote their lives to these miserably afflicted people ought to stir up the British Government to make strenuous efforts to prevent the spread of leprosy in India. Mr. Clifford's book contains touching pictures of Father Damien's holy life and death.

Dictionary of National Biography. Vol. XX. (Forrest—Garner). Edited by LESLIE STEPHEN. London: Smith, Elder, and Co.—Volume XX. of this comprehensive work contains over 500 biographies, between twenty and thirty of which have reference to members of the medical profession. Amongst these may be mentioned John Fothergill (1712–1780), who, after graduating at the University of Edinburgh and coming to London to practise in 1740, was admitted a Licentiate of the College of Physicians on Oct. 1st, 1744, being the first graduate of Edinburgh thus admitted; John Milner Fothergill, M.D. (1841–1888), the writer of several well-known medical works; Simeon Foxe, M.D. (1568–1642), President of the College of Physicians from 1634 to 1640, and to which College he bequeathed a sum of £40. Dr. Foxe was buried in St. Paul's Cathedral, and he bequeathed a sum of £20 "towards ye repayring of ye same Cathedrall." The name of Fryer occurs six times, five of the Fryers being medical men. Dr. John Fryer, who was President of the College of Physicians in 1549 to 1550, seems to have possessed some sense of humour. He had attended the Bishop of Rochester in his last illness. On the Bishop's death his goods were seized "to the King's use," so that for twelve days' labour and four nights' watching Fryer received nothing. Thereupon he besought Cromwell's mediation on his behalf, observing: "Except your lordshype be good to me, I shal bothe lose my labour, my frende, and also my physycke; and truely if physycyens shuld take no monye for them that they kyll, as well as for them that they save, theyr lyvyngs shuld be very thynne and bare." As regards the amount of his recompense and reward for his pains, he remarks: "I beseche your lordshyppe it may be so motche the mor lyberall, becawse it shalbe the last payment; for of them that scape, we may take the lesse, becawse we hope they shale ons cum agayne in to our handys." The type and general get-up of the volume are all that can be desired.

Manual of Musical Drill and System of Physical Training, for the use of Schools. By GEORGE CRUDEN, A.M. Pp. 231. London: Simpkin, Marshall, and Co. 1889.—*Manual of Swedish Drill (based on Ling's System), for Teachers and Students.* Compiled and arranged by G. L. MÉLIO. Pp. 79. London: Sampson Low and Co. 1889.—The first of these works has been drawn up by an advocate in Aberdeen, chiefly for the use of teachers in public schools, with a view to promote the physical training of the young. It consists of two parts, the first including marching drill and those exercises in which little or no apparatus is used, and the second those requiring special apparatus, such as is to be found in ordinary gymnasia. The first division has a musical accompaniment for each set of exercises, and both divisions are illustrated by figures showing the manner in which the different exercises are to be performed. It is very much on the principle of Alexander's "Modern Gymnastics," and we have no doubt will be found a useful handbook for teachers. It is evidently the work of a man who thoroughly understands the subject and is careful in his directions. The second work gives a brief biographical sketch of Ling, the inventor of the Swedish system of gymnastics, and full instructions for executing correctly the various movements comprised in his system. It is entirely confined to exercises without apparatus of any description, such as clubs, dumb-bells, and wands, and the use of music is forbidden. At the end of the book a course of ten lessons is given, with the movements illustrated by figures. The system seems one well adapted for introduction into ladies' schools, and might also be adopted with advantage for young and delicate children. If carried out systematically it could not fail to be beneficial.

Emergency Notes: What to do in Accidents and Sudden Illness until the Doctor comes. By G. R. BUTLER, M.D. Pp. 102. New York and London: Funk and Douglas. 1889.—This addition to the literature of first aid to sick and wounded does not seem to have anything very new or special on the subject. It gives the usual information respecting what should be done in accidents, in cases of drowning and of poisoning. The book has the advantage of a copious index.

The Gulstonian Lectures on Secondary Degenerations of the Spinal Cord. Delivered at the Royal College of Physicians, March, 1889. By HOWARD H. TOOTH, M.D., F.R.C.P. London: J. & A. Churchill. 1889.—Some slight conception of the remarkable advances made of recent years in the knowledge of the minuter anatomy and physiology of the central nervous system may be gained from the perusal of Dr. Tooth's Gulstonian lectures. The topic selected appears at first sight to be comparatively limited; but it will be found that the lectures are full of facts gained by assiduous and patient study of the histological changes in degeneration of the nerve fibres and the various tracts in the cord selected by ascending and descending lesions. Dr. Tooth has made an important contribution to the scientific study of a difficult subject.

The Causes and Treatment of Abortion. By ROBERT REID RENTOUL, M.D. Edinburgh and London: Young J. Pentland. 1889.—This is a prize essay, with revisions and additions. It is a laborious compilation, and must be the result of careful reading. In the desire to be exhaustive the author has, especially in the chapter on "Maternal Causes," enumerated many important branches of the subject without much discussion. The chapter on the sequelæ of abortion (perimetritis, parametritis, phlegmasia, &c.), having no special characters in the case of abortion, might, in our opinion, have been omitted. Authorities are collected in a short index, but references in the text to chapter and verse would have enhanced the value of the work.

New Inventions.

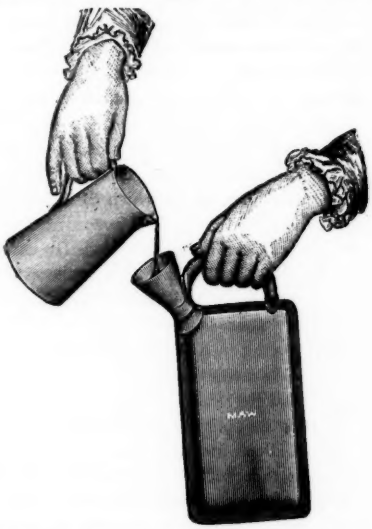
"COMBINAIRE."

MR. THOS. STOWARD has patented a material produced by the union of indiarubber tissue and felt, to which he gives the name of Combinaire. It appears to be well adapted to many useful purposes, among which the inventor enumerates the lining of horse-boxes or stables and the making of cushions for public conveyances. For the former it appears to be well adapted, being seemingly singularly free from liability to burst under the impact of a sharp blow, and presenting a surface that can easily be cleansed by washing, while at the same time it can be made to afford any required degree of softness and resiliency. For use as a cushion it is of prime importance that a material should be impervious to dust and moisture, especially when seats have to be cushioned which are sometimes exposed—as is the case with railway carriages, omnibuses, and, to some extent, perhaps, with all public conveyances—to showers of rain. We have accordingly subjected a small cushion supplied by the inventor to a very severe test in this respect. The

cushion before the experiment weighed six ounces, and was first immersed in water for a period of seven hours. It was found to have absorbed no more than a quarter of an ounce of water. Subsequently it was kneaded under water until it ceased to give off air. Very little air in all was given off, and again it was found to have taken up less than half an ounce of water. After being cut open it readily absorbed fourteen ounces of water. We have the satisfaction, therefore, of saying that, so far as the qualities of this new material can be ascertained by experimental tests, they appear to fit it admirably for the purposes for which it has been designed.

IMPROVED HOT-WATER BAG.

MESSRS. MAW, SON, and THOMPSON, of Aldersgate-street, have submitted to our inspection a Hot-water Indiarubber Bag, the pattern of which exhibits a distinct improvement on the ordinary arrangement in apparatus of this kind. This improvement consists in the funnel for filling the bag being placed at one corner instead of in the centre. The difficulty hitherto felt in charging the hot-water bags is, in



the pattern under notice, removed, as the handle is of sufficient strength and rigidity to allow of its being held by one hand whilst the vessel is being filled by the other, and that without the risk of being scalded by the steam of the hot water. The sample forwarded to us is also provided with a plush cover or jacket, which will necessarily enhance the comfort attending the use of the bag.

THE DETECTION OF COLOUR-BLINDNESS.

To the Editors of THE LANCET.

SIRS,—The subject of colour-blindness seems to be occupying considerable attention at the present time, but few seem to be aware of the imperfections of the tests used by the different railway companies. I will not deal with tests which are manifestly useless, but confine myself to that test which is recommended by many as an efficient one. I mean Holmgren's wool test. At an early period in my experiments in colour-blindness I found that there were very grave objections to this test, from a practical as well as from a theoretical point of view. I will confine myself to the practical aspect of the test.

1. Whom are we to reject by this test? If we reject all the (so-called) partially red and green blind, we shall reject many persons who are practically competent. If we only reject the (so-called) completely red or green colour-blind, we shall allow many persons who are dangerously colour-blind to officiate as signalmen. The test is more theoretical than practical, the main object of testing for colour-blindness being apparently lost sight of. Thus it has to be proved that a man who puts a confusion colour with a green wool cannot distinguish between a red and a green light. Then when a man has put a confusion colour with a green wool, there is still the point to be decided whether he has been judging more by shade than by colour. To an uneducated man a light green and a light greenish-grey are very much alike. In my experience, an ignorant four unit colour-blind—that is, a person who is partially colour-blind, but not colour-blind to an extent necessitating his rejection—is more likely to fail than an educated two unit—red-green colour-blind.

2. A person with central scotoma will escape detection if examined by this test. For example, I examined a person with central scotoma with my pocket colour test (in which small pieces of coloured material are ranged in rows), and found him perfectly colour-blind with respect to red, green, and grey. I then examined him with Holmgren's test, and he went through it correctly with the greatest ease. As a light at a distance occupies the central portion of the field of vision, these persons will be found to recognise colours when close to them, but not when they are at a distance.

3. The red end of the spectrum may be considerably shortened, so much so that a person may scarcely be able to distinguish red from black. It is obvious that this will not prevent him from matching a light green wool with other green wools.

4. The test, being based on a fallacious theory instead of upon practical observations, repeats all the errors of this theory. Some of the features of the test are really due to impurities in the colours used.

With regard to the test which should be used. If the persons to be tested have to distinguish between the standard red and green lights, these lights should be used as a basis of the test; because if any other test were used we should still have the same problem before us from a practical point of view. Space will not permit me to go into the details of my test. Briefly, I put the person to be tested in as nearly as possible the same conditions as he would be likely to be in when following his employment.

Thus, in combination with coloured glasses, I used special kinds of neutral glass of different degrees of thickness. These glasses obstruct the light in the same way that the atmosphere or fog does, and therefore puts the examinee in a similar position to that in which he would be likely to be. It is perfectly certain that a colour-blind person cannot judge by the intensity of a colour when there is a thick neutral glass in front of it. Naming colours is certainly the best method under these circumstances, because it is the expression of the idea present in the examinee's mind. Ignorance of colours would be quite as fatal as colour-blindness if a sailor *thought* a red light was called green and steered as directed for a green light. I think the argument that Holmgren uses against naming colours is really one in favour of it. Thus, many uneducated men who would put a light greenish-grey wool with a light green wool would not make this mistake if told to pick out all the greens.

With regard to the person who should conduct the examination for colour-blindness. There seems to me no doubt that the testing should be conducted by a medical man specially trained in colour-blindness. Testing for colour-blindness is not an easy matter, and requires as much experience as using an ophthalmoscope or stethoscope. I am strongly of opinion that we shall make no real advance until a committee is appointed to report on the subject, and to examine and appoint properly trained examiners. I know of one case in which the examiner himself was colour-blind.

I hope that colour-blindness in connexion with railways will be considered before some great railway accident draws universal attention to the subject and the worthlessness of the tests in use.

I am, Sirs, yours faithfully,

F. W. EDRIDGE-GREEN, M.D.

Finsbury Park, N., Oct. 12th, 1889.

UNIVERSITY OF CAMBRIDGE.—Professor Michael Foster has been reappointed a manager of the Balfour Fund for a period of five years.

THE LANCET.

LONDON: SATURDAY, OCTOBER 19, 1889.

NOTWITHSTANDING the readiness of all classes and companies to laud and magnify the profession of medicine, it is admitted on all hands that it is an underpaid profession. Often the medical man goes unpaid altogether or is paid last of all creditors. And in regard to large sections of the community a most immoral conception of obligation for medical service obtains. The great working and wage-earning class contains comparatively few members who think it proper to provide for themselves and their families a medical man to whom they can honestly and boldly go at any hour of the night or day. Even for ordinary ailments they rush off to the nearest hospital or dispensary, and *a fortiori* for anything extraordinary. Unfortunately this contagion of dependence and pauperism in medical matters has invaded the lower middle and trading classes, and well-to-do people think it quite within their rights to take themselves and their children to the great out-patient departments of our hospitals, and wait for hours in the most promiscuous of all crowds till they are seen by one of the out-patient staff. In the middle of the night when pain presses, at the evening time when matters look threatening, and a certificate of death may be needed to stave off an inquest, the general practitioner is called in, not to save life, but to cover the death of the patient with the semblance of proper attention. In this way several evils have arisen: the wage-earning class and the lower trading and middle classes have become a charge on charities that were never meant to bear such a burden. The medical practitioner who cannot be dispensed with altogether is treated, not as an educated man whom it is an advantage to have as a neighbour and a friend, but as a stop-gap. There is yet a third evil—that the classes who thus escape a reasonable expenditure on medicine are demoralised. Health, which costs them nothing to keep or recover, or but the price of a glass of beer, is lightly esteemed. They are seen in their illnesses or ailments by strangers, who have no social knowledge of them or personal interest in them, and, as they get medicine and advice for nothing, they conceive the idea of getting most other things for nothing. From the medical charity experience they lapse readily into dependence on other forms of charity, and are apt to land as paupers in the Poor-law dispensaries. It is unquestionably true that many a working man who could pay easily £2 or £3 a year to a neighbouring practitioner, and who would blush to get parish medical assistance for himself, thinks it no shame to get hospital advice and medicine for nothing or for a pittance, which is almost more demoralising.

The facility for getting hospital advice and medicine is felt on all sides to be a great evil. Some say that it is quietly encouraged, or at least winked at, by the staffs of hospitals, either in the interest of medical education or for more personal reasons. Dr. RENTOUL says in one of his papers: "A number of practitioners acting on hospital staffs will oppose all efforts to restrict the giving of charity to all, as they hope that, the pay system being introduced, they will receive wages for work done by them." Sometimes the wealthy members of a hospital staff recommend the admission of a private patient rather than take a fee which the patient could easily pay to another surgeon, but which is beneath the dignity of the surgeon he first consults. This is a monstrous evil and an injustice to hospitals and to younger surgeons.

The enormous scale of hospital and dispensary abuse leads to the suggestion of many remedies, some of them, we fear, impracticable, or inadequate, or both. Dr. HUNTER of Paisley proposes to ask the Medical Council to request Government to legislate so that hospitals and medical aid may be paid for by a rate or tax, and a civil medical service for the benefit of the people be organised, the same as is afforded to the army and navy. This is a bold proposal—to ask the Government to pay and appoint the medical attendants of the people, even well-to-do people, who, according to the scheme, have to pay extra. The Government seems to us to have a great many things to do before it will find time to create a civil medical service. Dr. RENTOUL has another remedy—first, the cure of hospital abuses; and, secondly, the elaboration of a medical tariff for all wage-earners making from 20*s.* to 45*s.* a week, including everything, from a visit to an operation for strangulated hernia, for which £1 is to be paid. We think Dr. RENTOUL will do well to concentrate his attention on the removal of hospital abuses. He cannot force the working man to have his operation for hernia done outside a hospital, nor the capable surgeon who does it to be content with 20*s.* There is no power known to the law or to reason for enforcing such elaborate schemes and tariffs. They would shackle medical men in their hard competition with hospitals, and they cannot be enforced. A mere wage-test, too, is very deceptive. One working man with a healthy family and continuous work may be richer with 20*s.* a week than another with 45*s.* Another great defect in Dr. RENTOUL'S plan is, it makes no provision for attendance on families. If the people are to be weaned from hospitals and dispensaries it must be by methods that interest and benefit the families of the working classes, and gives them the sense of having a family doctor who takes a continuous and personal interest in them. Dr. RENTOUL'S scheme, too, includes payments to chemists for medicines, as well as to the medical man for advice. This is a matter for men of experience to determine, but we should say it is vain to expect the wage-earning class to make two payments. The doctor must either dispense or pay the chemist for dispensing. We may return to this subject, but we must, above all things, be practical, if we are to do any good.

THE question of treatment of extra-uterine gestation is too large to be dealt with briefly, but it may be well to indicate what we believe to be the proper procedure under several of the many conditions.

1. Before rupture—i.e., in the first ten to fourteen weeks. Here the difficulty is mainly one of diagnosis, and before diagnosis can be entertained suspicion must precede. It may be safely said that he who has not got the idea of tubal gestation well established in his mind will never

suspect these cases, for they do not strike the attention. That they are more frequently suspected now than formerly is due to the greatly increased interest which is now excited in the subject—the increase of interest in its turn being due to increased surgical interference, and this again depending on the great improvement of abdominal surgery. But if the diagnosis of uterine pregnancy at a corresponding period is confessedly most uncertain, much less certain is that of extra-uterine pregnancy; and yet it must be made, or at least approached, nearly enough to justify treatment, either by action or inaction. In this connexion it is most helpful to remember that the difficulties in the diagnosis of extra-uterine pregnancy differ according to the different stages of pregnancy; in the early months it is easy to diagnose that a mass is extra-uterine, but difficult to determine that it is due to pregnancy; in the later months it is easy to diagnose pregnancy, but often difficult to diagnose that it is extra-uterine. The diagnosis of tubal pregnancy before rupture being thus necessarily obscure, what amount of probability may we expect to get? We should carefully inquire into the history of the last lying-in, especially with regard to the question of pelvic inflammation; we should ascertain the dates of antecedent pregnancies, especially with regard to the prolongation of the interval between the last pregnancy and the present supposed pregnancy, as compared with former intervals. We should go into the history of recent menstruation, and not be content with general statements, for strict amenorrhœa is not the rule in extra-uterine pregnancy; it is commoner for the patient to go a week or two over her first or second period, and then to have irregular discharges of blood. There may or may not be mammary signs; but these cases commonly concern multiparæ, in whom mammary signs are both less plain and less trustworthy. Serous secretion in one or both breasts may be taken for what it is worth. The discharge of a decidua is a sign of great importance. It is discharged at very variable times, often in connexion with rupture. It is generally lost unless a strict watch is kept on all discharges. If complete, and if empty, it is absolutely diagnostic of abnormal pregnancy, either extra-uterine or connected with a double uterus; but it must not be forgotten that largish sheets of decidua vera may be discharged from a pregnant uterus without abortion. The diagnosis, so far as it is possible, is completed by pelvic exploration. At this stage the uterus is often not palpably enlarged, the cervix is not usually soft, and all that is found is a lump, generally in one or other posterior quarter of the pelvis, displacing the uterus more or less to the opposite anterior quarter. It must not, however, be forgotten that fatal hæmorrhage has occurred from a gestation scarcely larger than a nut, and which could hardly have been detected. This completes our means of judging. It may be added that all these may be present, and be simply misleading; and yet if all are present we must decide on action or inaction. It is for these cases that electrolysis has been recommended, and it is claimed, especially in America, that in many cases the embryo has been killed, the sac has shrivelled, and all has ended happily. A contrast has been drawn between the diffident diagnosis of surgeons familiar with abdominal section and the confident diagnosis of those who do not operate and have, therefore, few opportunities of testing their correctness. Indeed, the acceptance of their diagnosis has been made almost a personal matter by some electrolists. With all respect for the perfect good faith of these gentlemen, we believe that evidence of such occurrences is entirely untrustworthy. It is known that electricity may flay a fœtus alive without killing it, and when we add that some of these cases may be read side by side with others in which after the use of electricity an ovum has been passed *per vias naturales*, and the operator asks his readers to believe, not that he has innocently procured a common abortion, but that he has induced the fœtus to pass from the tube into the uterus, we feel pained to think that so touching an appeal should fall in such unbelieving times as the end of the nineteenth century. What, then, is to be done? In our opinion, abdominal section.

2. The tube has ruptured. Here two conditions at least may obtain: (*a*) the patient is accessible at the time, (*b*) the patient is not accessible till some time after. (*a*) If the patient is accessible at the time abdominal section should be performed, for she may bleed to death, and the general rules of surgery are current here as elsewhere. (*b*) The patient is not accessible till some time after. We feel bound to warn our readers that this includes the great majority of cases which have been operated on, and that it is quite certain that rupture occurs not unfrequently without a fatal issue. If this is so, it is claiming too much to assert that all patients who do not die after operation have had their lives saved. What is to be done? Here there can be no absolute rule, but in most cases we think that the wisest course is to keep the patient under careful and immediate observation. If the lump shrivels, leave it alone; it has died, and at this early stage will be almost or altogether absorbed in many instances. If it grows, or if fresh symptoms of rupture occur, operate. Should the sac become infected from the bowel, it must be treated according to the rules of fetid abscesses.

3. Supposing that the case is not seen till the later months of pregnancy. What is to be done? Here comes in the question of the life of the child. In our opinion, in the face of the tremendous maternal risks, it is bad sentiment, bad morality, and bad surgery to regard the life of the fœtus for a moment. It should be removed, the operator remembering that many cases are subperitoneal, and should not be attacked in the middle line. If the sac can be extirpated, so much the better; if not, the placenta must be left, and the sac drained. It has been proposed to cut off the cord short and close the wound; but this has not gone beyond the stage of proposal. We shall watch with great interest for reports of such proceedings, whether favourable or unfavourable. An operator who decides to open the abdomen under these conditions must remember that the placenta is sometimes planted on the anterior abdominal wall, and that there is no case on record in which an operator, having fairly encountered it in his incision, has succeeded in stopping the bleeding. We feel bound to add this, because the fear of hæmorrhage has been ridiculed as a bugbear. The position of the placenta in these cases may sometimes be determined by palpation, but not by the (incorrectly named) "placental souffle," which has nothing whatever to do with the placenta, and

in all carefully observed cases has been found to be absent over its site.

What we wish principally to inculcate here is the direction in which facts are required. The affection is far from uncommon, and it may be in the power of any of our readers to render incalculable service to knowledge by bearing the main facts in mind, and watching. The discussion of the subject has been somewhat burning in many quarters. It is, above all things, desirable that personalities should be strictly avoided. The affection is common property, and no one who is worthy to fill the humblest place in our profession can do otherwise than rejoice at any advance either in knowledge or in method by whomsoever made, and condole with any colleague who records failures which may contribute to the successes of others, and to record which requires some unselfishness, as well as faith in the good feeling of his professional brethren.

COINCIDENTLY with the remarkable decline in the recorded mortality from scarlet fever in recent years has occurred an equally remarkable increase in the recorded mortality from diphtheria. These changes have been especially noticeable in London. Thus, while the death-rate from scarlet fever during 1888 in Registration London was 29 per cent. below the mean rate in the ten preceding years, the rate from diphtheria exceeded the same average by 23 per cent. And from another point of view it appears that in the ten years 1861–70 the mortality from diphtheria was less than a sixth of that from scarlet fever, and in the next ten years, 1871–80, it was little more than a fifth; whereas since the beginning of 1885 the mortality from diphtheria in London has actually exceeded that from scarlet fever. This increased mortality from diphtheria coincident with a decreased mortality from scarlet fever is noticeable in the mortality statistics for the whole of England and Wales, but is not so well-marked as it is in the London statistics. This is partly due to the fact that both the decline in the mortality from scarlet fever and the increase in the mortality from diphtheria have been much greater in the large towns than in the rest of England and Wales. It is not our purpose now to consider the possibility of any direct relation between the decline of scarlet fever and the increase of diphtheria, but rather to call attention to the serious increase of fatal diphtheria in our large towns, and especially in London, which is not receiving the notice it calls for. In the Registrar-General's reports diphtheria was classed under the same heading as scarlet fever until the year 1859, when the two diseases were first shown separately. Diphtheria mortality in London was high during the six years 1859–64, and showed a mean annual rate of 239 per million of the estimated population; the rate fell to 135 per million in the next six years, and further to 122 in the ten following years, 1871–80. Since 1880, however, the disease has shown a marked increase of mortality, and the mean annual rate in London in the eight years 1881–88 rose to 228, the highest rate being 305 in 1888, which exceeded the rate in any previous year on record. The increase, moreover, has been more than maintained during the present year, for the annual rate during the first nine months of this year was 351 per million, against but 163 from scarlet fever. The distribution of fatal diphtheria within the metropolitan area is very general, but the death-rate from the disease during the three months ending with September last (when 456 deaths from diphtheria occurred among the London population) was most marked in Paddington, Kensington, Shoreditch, Bethnal Green, St. George-in-the-East, Stepney, Newington, and Lambeth. Nearly twelve months ago the continual increase in the mortality from diphtheria in London was brought to the notice of the Local Government Board, and the Metropolitan Asylums Board was authorised to receive cases of this disease for isolation and treatment in their hospitals. It is still too early to attempt to judge of the effect of this hospital isolation upon the prevalence of diphtheria and upon its mortality. We know, however, that in spite of this action the fatal prevalence of the disease has continued to increase. It is not without interest, moreover, to consider both the amount and the proportion of the metropolitan cases of diphtheria that have been treated in the Metropolitan Asylums Hospitals during the last twelve months. It appears that 582 cases of diphtheria were admitted to these hospitals prior to the end of September last, of which 216 proved fatal, 244 were discharged recovered, and 122 remained under treatment on Saturday, Sept. 28th. The proportion of mortality among the 460 completed cases was equal to 47 per cent. When we consider that this rate of mortality is nearly five times that which prevails among the cases of scarlet fever treated in the same hospitals, it is natural to feel a strong desire to compare these with other case-mortality figures relating to diphtheria. Such case-mortality figures, calculated on a sufficiently large basis, are not, however, readily available, and we must wait before we pronounce upon the effect of hospital treatment upon the mortality of this disease. It remains to consider the probable proportion of the London cases of diphtheria treated in the Metropolitan Asylums Hospitals during the past year. We find that of the 1600 deaths from this disease registered in London during the year ending with September last, 216, or 13·5 per cent., were recorded in these hospitals, while the proportion of the deaths from scarlet fever so recorded was equal to 43 per cent. On the somewhat doubtful hypothesis that the proportional case-mortality is the same in and out of hospital, we may therefore assume that during the last year certainly less than a seventh of the cases of diphtheria in London were treated in the Metropolitan Asylums Hospitals, although the proportion has recently been increasing. It remains to be seen what effect upon this proportion of isolation will be produced by the operation of the new Notification Act.

IN a short communication made to the *Nineteenth Century*, Dr. W. COLLIER raises the question of the Comparative Insensibility of Animals to Pain. There is much to be said on both sides of the question. Taking the human race, where the means of determining the relative degree of pain on the infliction of injury are accessible, it is certain that very great differences of sensitiveness exist. Few things constitute a sharper stimulus to a nerve than the knife, though laceration and bruising sometimes are nearly as severe, as those who have had a tooth drawn are well aware. Yet even the pain produced by the knife is borne with a difference, not only by different races, but by different individuals of the same race. Pain which causes

one man to faint, will be borne by another without blenching, and there would even seem to be variations in the capability of bearing certain kinds of injury; for whilst negroes will batter each other's heads with blows that would probably prove fatal to a European, but which does them, partly on account of their thick hair and dense skull little harm, yet a blow on the abdomen, or even it is said a cut with a cane, which would cause little more than temporary inconvenience to the European, is seriously depressing or even fatal to them. We may reasonably conclude that if such great variations exist in the human subject they would be still more apparent in animals. That animals are conscious of pain there can be little doubt; nor can we doubt that there are great differences in the susceptibility to pain in different animals. The touch of a whip which will make a dog howl, and a thoroughbred horse to quicken his pace, will apparently be unfelt by an ass. Again, some animals seem to be susceptible to acute pain in certain parts, while they scarcely feel pain in others. A horse or cow will soon feed after a fracture of the leg, but an attack of colic or of peritonitis at once prostrates them, causes them to emit cries and groans, and entirely takes away the disposition for food. That some of the insensibility of the lower races of mankind is due to a much reduced number of sensory nerves seems to have been proved by late researches, but we are not aware that any observations have been made on the relative number of nerve fibres in the nerves of animals as compared with man, though such a research would unquestionably be very interesting. It is often thought that muscular movements show that pain is experienced, but every physiologist is well aware that violent movements can be excited having a tendency to withdraw the part irritated from the cause of irritation without the least perception of pain on the part of the animal. This is most conspicuous where the spinal cord is divided; the contact of a hot spoon with the sole of the foot will cause the leg to be violently drawn up, though neither in animals nor in man is there under such circumstances the slightest consciousness of pain. Cries again afford little information in regard to the endurance of pain, and indeed seem rather to be associated with the emotion of fear, as is shown by the circumstance that many animals caught in a trap will utter no sound, though severely lacerated, whilst they immediately emit cries on the appearance of the hunter. Dr. COLLIER adopts this view, and argues, we think, very strongly in favour of it. He points out that amongst the lower races of men the insensibility to pain is extreme, and refers to an example given in the *Spectator* a few months ago, when a correspondent related the fact that on the introduction of boots into New Zealand the vanity of the natives was so great that when one of them was happy enough to become the possessor of a pair, and found that they were too small, he did not hesitate to chop off a toe or two, stanch the bleeding by covering the stump with a little hemp, and then force the feet into the boots. Dr. COLLIER points out that animals are not liable to shock, and hence after the severest injuries will continue to feed as though nothing had happened; that many animals, as crabs, will throw off an offending limb; and that most animals die in deadly conflict or under the occurrence of sudden wounds, when evidence derived from man shows that little or no pain is experienced. Mr. ROWELL has accumulated in his "Essay on the Beneficent Distribution of the Sense of Pain" a series of remarkable cases, showing the very low sensibility of even the higher animals. He gives, for example, the case of a post-horse, which was running between Botley and Evesham, when it came down with such violence that the skin and sinews of both the fore fetlock joints were so cut that on its rising the bones came through the skin and the feet turned up at the back of the legs, the animal walking on the ends of the leg bones. It was placed in a field till permission was obtained for having it shot, and the next morning it was found quietly grazing, with the feet and skin forced some distance up the leg bones. Dormice, rats, and even monkeys will nibble away their own tails, and an old hyæna kept in the Jardin des Plantes at Paris had its leg broken, and one night bit off the leg at the broken part and ate it. It must be remembered, too, as Mr. ROWELL has pointed out, that pain has its beneficial aspect, being a guard against injury and a check to excesses; the high sensitiveness of the lips in man, for example, preventing the introduction into the stomach of food or fluids at too high a temperature, and the pain of pleurisy or of pericarditis preventing the sufferer from taking any violent exercise. We are quite in accord, however, with Dr. COLLIER, in thinking that a belief in the small amount of pain experienced by animals should not make us less careful in our dealings with them, but should strengthen our belief in the mercy and benevolence of the Creator, and should increase our pleasure in studying their habits and movements.

Annotations.

"Ne quid nimis."

THE SIGNIFICANCE OF THE QUALIFICATION OF L.S.A. PROCURED SINCE 1886.

WE publish in another column a communication furnished us by Mr. Upton, the respected solicitor of the Society of Apothecaries. It is meant to define exactly the legal significance of the licence of the Apothecaries' Society since and under the Act of 1886. Prior to the passing of that Act an apothecary was qualified to practise only in medicine. The licence did not cover the practice of surgery or midwifery. In truth, there was no examination in surgery. Now, however, all that is altered in accordance with those provisions of the Act of 1886 which required—first, that no person should after a certain date be registered in the Medical Register who was not possessed of a qualification in medicine, surgery, and midwifery; and, secondly, that the Medical Council should appoint examiners to assist in and complete the examination of any corporation which, after due endeavours, had failed to combine with any other corporation; so that henceforth its examination should be a test in the three branches of medical practice, and its licence should cover all the three branches. The Society of Apothecaries, and the sister Society in Ireland both took advantage of these provisions, and so saved themselves as qualifying bodies. This is the meaning of Mr. Upton's letter. There is no change in the letters L.S.A. in the qualification column of the Register, following the names of those possessed only of this diploma; but the letters of the title acquired since the Act of 1886 came into force have a threefold signification, and imply as much qualification as the law requires.

SURGEON-GENERAL MARSTON, C.B.

THE *Gazette* of the 15th inst. intimated the retirement from the active list of the Army Medical Staff of Surgeon-General Marston, C.B. During the last thirty years Dr. Marston has done good and meritorious service as an army medical officer, and has filled with distinction several important appointments. In 1873, while employed at headquarters, he drew up all the details connected with the fitting up of the *Victor Emmanuel* hospital ship for service with the expedition to Ashanti, with most satisfactory results. In 1877, as medical member of a committee appointed by the Secretary of State for War, he drew up the dietary for military prisons which is now in general use. In December of that year he was appointed secretary to the Principal Medical Officer of the British Forces in India, in which capacity he had to prepare the scheme of field hospital organisation which proved so successful in the Afghan wars. He was also member of a committee appointed to consider the steps to be taken for the withdrawal of the troops from Afghanistan after the treaty of Gundamak, in consequence of cholera having made its appearance on the Cabul-Khyber route. For these services he was favourably mentioned in general orders, and was appointed honorary surgeon to the Viceroy. In 1882 he was appointed sanitary officer to the Egyptian Expedition, was present at the battle of Tel-el-Kebir, and was promoted to the rank of Deputy Surgeon-General. He subsequently held the appointment of Head of the Statistical and Sanitary branches at the Army Medical Board, and was nominated a member of the commission appointed to inquire into the education afforded by the Queen's Colleges in Ireland. In 1887, at a very short notice, he delivered a course of lectures on Military Hygiene to the probationers and medical officers at the Army Medical School at Netley, during the illness of Professor De Chaumont. In the autumn of the same year he was sent by the War Minister as the Army medical delegate to the ninth International Medical Congress held at Washington. His valuable report of the proceedings was published as an official document by the Government (*vide* THE LANCET, March 17th, 1888). In 1888 he was sent to Egypt as Principal Medical Officer of the British forces serving there, and organised the medical arrangements connected with the contingent sent to Suakim under Sir F. Grenfell. On his promotion to the rank of surgeon-general, he was transferred to Gibraltar, from which he has returned to retire from the service. In addition to much useful official work, Dr. Marston has contributed some excellent papers to the Army Medical Department Reports. Of these we would only specify a Report on the Fevers of the Mediterranean, in the volume for 1861; on Cerebro-spinal Meningitis, 1866; on Cholera, 1878; Enteric Fever, 1879; Sanitary Report of the Egyptian Expeditionary Force, 1881; and in 1884 a description of huts designed by him for Suakim and hot climates. We cannot but think that the Army Medical Service has sustained a great loss in Dr. Marston's retirement, but we trust it may be a gain to the profession by enabling him to turn to good account the experience he has gathered in his varied service.

DEATHS UNDER CHLOROFORM.

AT an inquest recently held the particulars were given of the death of a child aged six years, who succumbed to chloroform at the Victoria Hospital for Children. The child was admitted for treatment of disease affecting the left hip-joint. He had taken chloroform successfully upon two previous occasions, but on the day upon which the operation was to be performed the boy died, after having inhaled the anæsthetic for fifteen minutes. A post-mortem examination was held, and the medical officer is reported to have said that there was fatty degeneration of the heart, liver, spleen, and kidneys. The above record illustrates the fallacy of two popular beliefs—first, that a person who can take chloroform with impunity upon one occasion will subsequently enjoy an immunity from danger; and, secondly, that children, who proverbially take chloroform so well, are less liable to fatal accidents from its effects than are adults. In the case in question the open method appears to have been adopted, and a careful watch kept upon the child's respiration and pulse; but in spite of this, respiration and cardiac action stopped, and although means of resuscitation were adopted they failed to save the boy's life. Visceral degeneration is so commonly associated with chronic joint and bone disease that it is preferable, we think, in anæsthetising a child having such a malady to select either a mixture of ether and chloroform, or employ ether in succession to nitrous oxide gas. As was shown years ago by Pollock and Warrington Haward, the youngest children take ether well when that agent is properly manipulated. With regard to prolonged operations upon very young children, the chilling effects of ether vapour is a decided drawback to its use, but to meet our requirements in these cases we have the mixtures upon which to fall back. Even when nitrous oxide cannot be given, and the child struggles against ether, a few inspirations of a dilute chloroform vapour will lessen the irritability of the fauces and larynx, and allow the subsequent exhibition of ether without difficulty. There have now been so many deaths of children attributable to chloroform, that it seems time the anæsthetic in question should not continue to occupy the position it has hitherto held of being the routine agent of producing anæsthesia in young people.

Almost before the ink is dry with which we record the above fatality, the report arrives of the death of a woman in a Dublin hospital to whom it was proposed to administer chloroform as a preliminary to amputation of a thumb. It appears before she was fully anæsthetised she collapsed and died. The jury's finding that "the deceased died from fatty degeneration of the heart" does not carry us very far. There has always been a strange fatality about minor operations conducted under chloroform, so that it is hard to understand why, in a case such as that before us, the anæsthetic selected should be the confessedly more potent and perilous chloroform, rather than ether. The most thoroughgoing opponents of ether recognise that its bad effects, whatever they may be, are only shown when considerable quantities are taken, and the operation is a very prolonged one.

STREET IMPROVEMENTS.

MR. DOUBLEDAY, of the London County Council, has been making an ingenious calculation of the cost of narrow streets, which leads him to some very striking conclusions. For example, he contends that the delay to the vehicular traffic consequent upon the congested state of the Strand represents a money loss at the rate of upwards of £47,000 a year. The novelty and ingenuity of this argument cannot be denied; nor, again, can the soundness of his ultimate conclusion be successfully assailed. But we are not at all equally clear that his immediate inference is altogether irreproachable. Indeed, he appears to us to have lost sight of the fact that widened streets imply extended areas, and consequently that it may well happen that the improvement of such a thoroughfare as the Strand in the way of increasing its breadth may add more to the distance of an average business journey than it deducts from the delay in making it. But if we suggest a doubt as to the soundness of Mr. Doubleday's very plausible argument it is not because we

have any desire to resist his conclusion. On the contrary, it seems to us that it would be difficult to overstate the importance of such improvements as he discusses. The excessive traffic through a narrow way which such a thoroughfare as the Strand exhibits is unwholesome both for body and mind. The turmoil and struggle are distressing to the nerves and destructive of serenity. The turbid atmosphere stirred into omnipresent eddies is laden with germ-infected dust, while the narrow and tortuous channel prevents the free circulation of fresh air, and the high buildings shut out the fitful sunlight. These are faults which it is well worth a liberal outlay to correct, and their correction would be an unalloyed and indisputable gain. We think therefore that there are good grounds for carrying out such work as Mr. Doubleday recommends without regard to his perhaps questionable arithmetic, and we are glad to see that the London County Council is addressing itself to this kind of undertaking. We trust that the considerations which have led to the deferment of this topic at the present time will have no more than a temporary application.

HYPNOTISM RETAIL AND WHOLESALE.

HAPPILY for the credit of the profession, the facts of the hypnotic state are pretty widely known and appreciated. A halo of mystery, a spice of the unknown, a faint suspicion of dalliance with occultism, render the so-called science of hypnotism a refreshing and acceptable change to the overwrought mind of the hard-working medical practitioner, and he is not backward to show his appreciation by joining societies at which hypnotic séances are held, or in other ways to keep himself *au courant* with the matter. But he is not always able to see between the lines and sift the science from the chicane. Against alike all the best feelings of humanity and the ethics of professional etiquette are "show exhibitions" of hypnotic phenomena, when the unknowing public are invited to attend upon paying an entrance fee. As well might the operating theatres of our hospitals, or the wards where our hystero-epileptics are treated, be made a focus for public attention, and afternoon receptions given, the proceeds of payment being of course given to "a charitable object." But we reach the climax of undesirability when the "charitable object" be the promoter of the show, whether he call himself "experimental director," "professor," or what not. Hypnotism, if in any way a remedial agent, belongs to the therapeusis of regular practitioners, and so falls within the scope of existing societies, such as the Neurological, Clinical, and Psychological, and so there can be no *raison d'être* for a concern such as is proposed under the aggressive title of the "Magnetic and Hypnotic Society of Great Britain"; and when we state that the "experimental director" has held public performances, we need hardly offer further arguments against a concern which cannot be deserving of the support of scientists or the public.

SALE OF FOOD AND DRUGS ACT.

A VERY trivial error in a certificate given by a public analyst was a few days ago the cause of an unfortunate collapse of proceedings under this Act against a dairyman for the sale of diluted milk. It is, no doubt, well that great circumspection should be used about the infliction of penalties, and it is right that a tradesman accused of infringing the provisions of the statute should have the benefit of carefully devised machinery for protecting him against false charges or the untoward consequences of official mistake. But, precisely on that account, it is the more important that the utmost care should be exercised by public officers and others who have the conduct of proceedings in a matter of this kind to avoid such a mishap as occurred the other day at the Bath City Police-court. A local milk dealer was, as we have said, charged with selling diluted milk, and whatever may have been the merits of the case, his defence was rested upon the narrow ground that the public analyst had entered the name of a Mr. Montague in his certificate as that of the person who had delivered to him the sample for analysis, whereas he should have entered the name of Gosling in this document. Mr. Gosling is Mr. Montague's assistant, and Mr. Montague, having effected the purchase and sealed up a sample of the milk in question, sent it by the hand of Mr. Gosling to the public analyst. For all ordinary purposes, therefore, it would be held that what Mr. Gosling had done in the capacity of agent to Mr. Montague had been done by Mr. Montague himself, and it is clear that the error of inserting Mr. Montague's name in place of Mr. Gosling's did not in the smallest measure affect the merits of the case. Nevertheless, it was held by the magistrates to be a good objection, and the charge was accordingly dismissed. The moral would seem to be that public analysts must be as careful about the formalities of their procedure as about the substance of their analyses.

TUBERCULOSIS.

DR. GREFFIER (*La France Médicale*, Nos. 115 and 116), writing upon recent researches in tuberculosis, alludes to several papers on this subject read at the recent Heidelberg Congress of German Physicians and Naturalists. In the course of a discussion Professor Rindfleisch declared that there were two different bacilli in phthisis, and that he had observed that the bacillus met with in miliary tuberculosis differed in thickness from that found in phthisis. But, as Dr. Heller pointed out, such differences may arise in the same sputa examined at intervals of a few days; and Dr. Greffier is doubtless correct in regarding this notion as insufficient on which to restore the doctrine of duality of phthisis. Dr. Böllinger finds that dilution of the milk of tuberculous cows deprives that fluid of its infective property, whether the dilution be made with water or with the milk from healthy animals. If this be so, then it is a point in favour of obtaining milk from large dairies, and also should check the practice of consuming milk taken from one cow alone, and unmixed with that from others. Yet it was found that not even a dilution of 1 in 100,000 destroyed the virulence of bacillary sputa. The subjects of heredity and contagion in respect to the transmission of phthisis were also discussed. Dr. Aufrecht held that the former was much more important than the latter, and declared that he had never met with, either in hospital attendants or in private practice amongst married persons, a single undoubted example of phthisis being communicated by contagion. On the other hand, Dr. Heller said that cases of phthisis did arise in hospitals; he had seen cases of croupous pneumonia which, instead of resolving, passed into caseation which he attributed to bacillary infection. In the Section of Hygiene, Dr. Sonnenberger, in a paper on the Risks of Bringing up Infants on Cow's Milk, declared that the number of "tuberculous" (*perlières*) cows in certain parts of Germany averaged 60 per cent., and that in Paris the mortality of infants attributable to the consumption of such milk was frightful. Other drawbacks to the use of cow's milk lay in the fact that certain vegetable poisons mingled with the food of the animal may appear in the milk. He especially pointed to the feeding on grains or bye-products of alcoholic fermentation as liable to render milk poisonous and to account for gastro-intestinal catarrhs in children. Dr. Schottelius finds that inhumation of tuberculous viscera does not, even after the lapse of a year and a half, destroy the bacilli or notably impair their virulence.

THE DEATH UNDER NITROUS OXIDE.

THE record of so unusual an event as a fatality under this anæsthetic has, through the medium of the daily press, received a widespread circulation, and has produced much alarm and dread of the gas. Now that the facts are fully known, it becomes our duty to allay what at best are groundless fears, and to remove the slur which rests upon nitrous oxide gas, as well as to reiterate that we believe nitrous oxide to be practically without danger if only patients, as well as administrators of the gas, would take a few simple precautions. The patient whose sad death we recorded in a preceding issue was seventy-one years of age, she was suffering from advanced fatty degeneration of the heart, and was fully aware of her condition. Although she breakfasted at nine in the morning, and the teeth were not removed until noon, digestion appears to have been wholly suspended by the intense terror she experienced at the thought of submitting to the operation. She repeatedly told her daughter that she "knew she would not survive the operation." Added to the full stomach, and the extreme apprehension, both conditions liable to tell against even a healthy, much more a fatty heart, the patient wore a very tight corset, so tightly indeed was she laced that it was found difficult to remove the stays even by slitting up the laces with a knife. Although it would appear the dentist warned the patient to loosen whatever she had on which was tight, she merely loosened the neck wraps, leaving the more important corsets tightly laced. As soon as nitrous oxide was commenced to be inhaled, the dentist noticed that respiration was insufficient, and urged deeper inspiration. Doubtless this weak breathing was due to the tightness of the clothing. When eventually the patient became unconscious, two teeth were removed and a hole drilled into the antrum, giving vent to pent-up secretion. Then the patient suddenly changed colour, became livid, while respiration and heart action ceased, it is believed, simultaneously. During the subsequent performance of artificial respiration the undigested contents of the stomach were voided. There seems little doubt in this case that the impairment of respiration from tight lacing, along with distension of the stomach, told upon a heart itself badly diseased and weakened by the fear to which the patient had given way, and the most melancholy result followed. There can be no question that when any known degeneration of the heart muscle exists the recumbent or semi-recumbent posture should be adopted, as can easily be accomplished in a dental chair, and corsets removed and all waistbands and strings loosened. Where fear exists in the patient's mind, it is important to avoid a full stomach; a cup of beef-tea or a basin of bread-and-milk should form the meal preceding the operation. Reviewing all the circumstances of this most sad fatality, there is, we think, no reason for going back from the position which modern anæsthetists have occupied, that nitrous oxide is not only the safest anæsthetic we possess, but that when it is circumspectly given it is practically free from danger, save in cases of very advanced disease of the heart or lungs.

CONFECTIONERS' DISEASE.

DR. RODIGUEZ MENDEZ, Professor of Hygiene in the Medical Faculty of Barcelona, has just published in a new Spanish journal, *La Medicina Práctica*, some notes of a case of a peculiar affection of the fingers and nails which appears to have been due to the patient's trade, that of a confectioner. Poncet of Paris, and Albertin of Lyons, have also observed the existence of this affection among those who are engaged in the calling of a confectioner. Dr. Mendez's patient was a man about forty years of age. When seen first every finger on both hands was affected, but not to the same extent. The worst was the middle finger of the right hand; here the anterior part of the nail was thickened and flattened, so that it had the appearance of a spatula, which is one of the signs noted by Albertin as occurring in his cases; the base of the nail was covered by a swollen portion of the soft parts which was not adherent to the nail, and which was of a bright-red colour with fissures as well as ridges on its surface. In it there were a number of minute abscesses, from the openings of which little beads of pus could be made to exude by pressure. The disease was evidently a combination of onychia with paronychia, and it was a remarkable point in the history of the case that the man had suffered in a similar manner, only much less severely, some years before, when he first practised the trade of a confectioner, and that when, for some cause totally unconnected with his malady, he had given up the trade, his fingers quite recovered. After a time he again took to the trade, but was at first engaged in making pastry and arranging the ornaments, during which time his fingers remained quite well. As soon, however, as he began to work on *marrons glacées* and on crystallised fruit his fingers began to become sore just as they had done in former times. There could be no doubt that the affection was due to the immersion of the hands in hot and cold syrups and the rubbing in of sugar, which, according to Remy and Broca, has the property of causing the tissues to become gangrenous. Dr. Mendez suggests that in this way openings were made by which pyogenic micrococci obtained access. His treatment consisted in washing the parts with a boracic lotion and wrapping them in boracic cotton wool. Of course the patient was enjoined to discontinue working at his trade.

ENTERIC FEVER AT BALRANALD, N.S.W.

THIS outbreak, which has been made the subject of a very exhaustive report prepared by Dr. J. Ashburton Thompson, occurred in a small and isolated bush township containing a population of 670, of whom no less than 120 suffered from enteric fever and 15 died. Every consideration calling for investigation is dealt with in detail, and by a process of exclusion water comes at last under grave suspicion; much of the material on which this view is based being the outcome of some very careful investigations made by Dr. G. L. L. Lawson, the district government medical officer. The main water-supply is derived from the considerable river on which the township lies, but rain tanks had recently been filled by the rainfall of January, and at that season of the year these tanks afford a much cooler and more attractive beverage than that supplied by the river. One special tank seemed associated with the outbreak. Amongst 124 persons known to use this tank water, there were attacks at the rate of 33·8 per cent.; amongst the remainder of the population the attacks, which numbered 47, were at the rate of 9·4 per cent. But amongst the latter there occurred a number of secondary attacks, and, quite apart from households known to use the tank water, it was incidentally drunk by other unknown persons, and it was supplied to at least one store where it was kept for customers, and also to two hotels, where it was used in the bars and at table. Under these circumstances, it became very difficult to eliminate all sources of error, and to assign every case occurring during the period preceding the secondary attacks absolutely to the tank water; but the general weight of the evidence is strongly confirmatory of the view taken by Dr. Thompson and Mr. Lawson. As to the means of pollution to which the tank may have been subjected, there was unfortunately but little doubt; and what with neighbouring cesspits, overflows, together with the recent filling up of part of an adjoining basement with earth, and this after the occurrence of several cases of fever

in the house, it can hardly be doubted that means existed by which specific poisoning of the tank water can have taken place. Much pains have evidently been bestowed upon the report, and the perusal of it can hardly fail to assist in educating the people as to the extreme danger of allowing any such conditions to prevail in their midst as will subject their domestic water-supplies to the risk of contamination.

THE HOUSING OF THE WORKING CLASSES.

THERE are probably few Acts of Parliament more complex than those which deal with the improvement of the houses occupied by the poorer portion of the community, and this is especially unfortunate, seeing that the constitution of the London County Council gives promise that the existing legal powers for effecting this improvement will be more fully exercised than heretofore. An effort to make these Acts more intelligible is therefore very welcome, and for this reason we have pleasure in calling attention to an admirable little book on the powers of the London County Council in regard to the housing of the working classes, by Mr. William Chance, Barrister-at-law. This work has the advantage of discussing the whole subject with great clearness in the small compass of some sixty pages. Mr. Chance has selected especially as the texts of his argument those provisions which are the most obscure, and thus the reader is able to learn with little trouble the view which an experienced counsel takes of the intentions of the Legislature. There is one point upon which we are disposed to differ from Mr. Chance—viz., the power of the London County Council to exercise, upon the report of its own medical officer of health, the powers which devolve upon it in the event of the default of a vestry or district board to carry out the provisions of Torrens' Acts. We may, perhaps, be misunderstanding him, and he may be assuming that the Council and the vestries and district boards are arranging by agreement for the making of the services of medical officers of health appointed by the former body available in the districts of the latter boards. There is no indication of this at present. We commend the book to all within the metropolitan area interested in the subject, feeling convinced it will serve to relieve them of much of the difficulty that has hitherto stood in the way of a clear conception of the intention and powers of these Acts.

HYPERPYREXIA IN HYSTERIA.

THE *Centralblatt für Klinische Medicin* translates from a Danish medical journal a notice of a case of hysteria with a rise of temperature to 113° occurring in the practice of Dr. Lorentzen. The patient was a nervous woman, who after an attack of hæmoptysis suffered from severe dyspnœa with cyanosis and temporary asphyxia several times during the night; after the attack the patient lost consciousness for some time, and was then anxious and inclined to hallucinations. During the next two months she had, without any signs of phthisis, repeated attacks of hæmoptysis, with a repetition of the symptoms connected with the respiratory organs, added to which there was retention of urine. The temperature varied for three days from 103° to 104° F.; on the fourth day at noon it rose to 113°. Dr. Lorentzen found the patient without any other symptoms of inflammation, but slightly delirious; the temperature an hour afterwards had fallen to 108°, and in the evening it was 106·3°. The next day, after some paroxysms of dyspnœa, the temperature rose again to 113°, but fell in an hour to 99·5°. It varied in the next few days from 101·3° to 103·1°, and then became normal. The author considers the hæmoptysis without the slightest lung affection as neuropathic, and the rise of temperature as hysterical, as there was no organic disease, and the respiratory disturbance was typically hysterical. It may be remarked that Teale found the temperature in a hysterical patient 122°, and Wunderlich 109·4° (*Archiv der Heilkunde*, vol. ccx.).

THE REDRESS OF CHILDREN'S GRIEVANCES.

SOME instructive notes on the working of the Act for Preventing Cruelty to Children are contained in the October number of the *Child's Guardian*. One of the lessons to be learned from these reports is the necessity of coupling with any fine proposed the alternative of imprisonment. A number of the cases dealt with under the Act have been those of children belonging to poor and dissolute parents, to whom any but the smallest payment would be an impossibility. The abuse of child insurance is deservedly exposed. Its evil influence on the death-rate during infancy might be effectively met by applying the remedy here quoted from a contemporary—namely, that any claim should be discharged not in money, but by providing for needful funeral arrangements. There is difficulty in some cases in getting children who have been cruelly treated to give evidence against their oppressors. The testimony of one boy when called as a witness of his father's ill-usage of him proved, either from fear or some filial regard, probably the former, to be a mere tissue of prevarication. In certain cases also magistrates have had some difficulty in applying the Act. Thus a few days ago a question of liability which is vested by the Act in the child's temporary custodian remained unsettled because a bench of magistrates were unable to decide between the responsibility of a father at sea and a mother at hand. Sometimes the *Child's Guardian* is needlessly severe, as, for example, when it refuses to make allowance for errors of ignorance in infant feeding, and critically censures a jury because it showed in this particular a sensible degree of moderation.

OPEN-AIR TRAVEL IN CONSUMPTION.

DR. H. I. BOWDITCH of Boston (*Med. News*, Sept. 28th) read an interesting paper before the American Climatological Association to prove the value of open-air travel "as a curer and preventer of consumption," basing his remarks upon the records of a journey taken in 1808 by his father, then thirty-five years of age, and threatened with that disease—cough, hæmoptysis, anæmia, diarrhœa, general malaise, fever, and debility being the indications. In this state of health he started with a friend on a tour through New England in a one-horse chaise. After the first day's travel—of twenty-five miles—he was so exhausted, and had so much hæmoptysis, that he was advised to return "to die," but he courageously pushed on, and every day brought him improved health. The benefit thus received made him resolve thenceforward to take daily regular open-air exercise; and when in 1838 he died, at the age of sixty-five, from carcinoma of the stomach, one lung presented "evidences of an ancient cicatrix at its apex, both being otherwise normal." Dr. Bowditch also states that his father married his cousin, who died of chronic phthisis in 1834. Of eight children, two died (at the age of eleven and at birth respectively), but all the others are either now living or arrived at adult life and married, and of the ninety-three direct descendants of his father not one is phthisical. This, Dr. Bowditch thinks, must be largely attributed to the above-named journey, and the subsequent careful regulation by his father of his own health and that of his offspring. We may append a few of the practical remarks which Dr. Bowditch deduces from his own family experiences:—"For my own part, I fully believe that many patients now die from want of this open-air treatment. For years I have directed every phthisical patient to walk daily from three to six miles; *never* to stay all day at home unless a *violent storm* be raging. When they are in doubt about going out, owing to

'bad weather,' I direct them to '*solve the doubt*, not by staying in the house, but *by going out*.' A cloudy day, or a mild rain, or the coldest weather, should not deter them. If the weather be very cold, let them put on respirators before leaving the house and be thoroughly wrapped in proper clothing for the season. I direct them never to stand still and gossip with friends in the open street, as by so doing they are much more liable to get a chill than while walking. Hence, summer and winter alike, my patients usually get plenty of fresh air uncontaminated in a great part, at least, by the previous breathing of it by themselves or by other occupants of the house. This course, I believe, might be pursued in any part of our common country. I am certain that I know of patients who have become well and able to attend the business of life under this course. May we not also at times send our patients over short distances in open vehicles, instead of thousands of miles off in ill-ventilated cars to an entirely different climate? Have any of us ever sufficiently tried this open-air journeying *at home*, so to speak—that is, in the region of the country where the patient lives, wherever that may be?" There is sound common sense in these words.

STARVING SCHOOL CHILDREN.

THE report prepared by a special subcommittee of the London School Board upon the problem of providing food for the destitute children who are collected in the elementary schools of the metropolis will draw public attention to one of the most valuable channels of philanthropic effort. The work of supplying wholesome food in sufficient quantity to the children of the poor is one that has the merit not only of alleviating present and severe distress, but also of redounding to the future advantage of the recipients and the State. It is quite impossible that starving children can derive any adequate benefit from the instruction provided for them, so that from the point of view of the teacher it is of prime importance that his pupils' hunger should be appeased. Otherwise his labour will be, in large measure, thrown away. But it is not on this ground only, not even on this ground chiefly, that the wisdom of this form of charity is to be vindicated. The privations of childhood are responsible for much of the incurable misery of after-life; and the great principle that "prevention is better than cure" can have no more striking exemplification than is afforded by the sequelæ of an insufficiently nourished childhood. Hence, the benefactions which take the form of providing food for the children of to-day are conferring an incalculable benefit upon the manhood and womanhood of the coming generation. It is, however, made very clear by the committee's report that the vices which commonly attach to unorganised and sporadic effort are abundantly exhibited by the arrangements at present in operation for supplying this need. Thus, after enumerating the principal societies which are doing this work, the report states that "in some districts there is an excess of charitable effort, leading to a wasteful and demoralising distribution of dinners to children who are not in want, while in other places children are starving." It is to be hoped that the state of things thus indicated will not be suffered to continue. The work which these voluntary societies have so worthily commenced is one that, both by its magnitude and delicacy, demands the best efforts of those who undertake its administration. On the other hand, the vast aggregate of 50,000 children who are daily sent to school in want of food presents a problem which by its magnitude rebukes the errors, however venial in themselves, of overlapping activity and disorganised effort which result in the waste of energy and of material, whilst the serious if somewhat insidious danger of pauperising the children and their parents will cause a wise philanthropist to walk very circumspectly in this way. Altogether, therefore, it seems to us that the argument in favour of consolidating the subsisting organisations and placing them under the control of a strong central committee is irresistible, and we hope that the very well considered scheme which has received the subcommittee's endorsement will commend itself to those whose co-operation is necessary to its success.

THE BLOOD IN PHTHISIS AND CANCER.

DR. G. NEUBERT (*La France Méd.*, No. 118, from *St. Petersb. Med. Woch.*, No. 32) has examined the blood in twenty-four cases of phthisis at various stages, and found that in nine the number of corpuscles was normal, in three it was above, and in twelve more or less below, the average. On the whole, there was an average diminution of about 8 per cent. The increase noted in three cases might perhaps be attributed to profuse night sweats. The hæmoglobin showed a reduction to 73 per cent. in the females and 85 per cent. in the males. There was no notable change in the number of leucocytes, but it was observed that multi-enucleated forms predominated. In five cases of cancer of the œsophagus and four of cancer of the stomach there was an invariable diminution in the number of red corpuscles, and also notably of hæmoglobin. It is inferred that the hæmoglobin, being the more "sensitive" element of red corpuscles, is more profoundly affected in cachexia than the stroma of the corpuscles. A distinction was made between the anæmic and marasmic types of cancer, the latter exhibiting an average reduction of 13 per cent. of corpuscles, whilst the hæmoglobin fell to 87 per cent. of the normal; the former showing a corpuscular reduction of 35 per cent.; whilst the hæmoglobin was as much as 70 per cent.

SANITARY WORK IN ISLINGTON.

THE Islington Vestry, on the report of their medical officer of health, Dr. Meymott Tidy, have ordered the demolition of nineteen dwelling-houses in Nelson-place, Holloway, and Aston-buildings, Holloway-road. One vestryman is reported to have said that he had found all the houses thoroughly rotten; not a closet was in repair, and the stench in some of them was fearful; the closets and the cisterns were inside the filthy living rooms. Another vestryman said he was a practical builder, and knew something of the places. Sixteen years ago he had to look at them in the way of business, and then said they could not possibly be put into repair. The brickwork was a complete sponge, and the places were soaked through by every rainstorm; if the lot of them were given him to-morrow, he would pull them down in a week. We are glad to be able to report that the decision of the vestry was unanimous, and this augurs well for the sanitary administration of the parish. It would be well if Acts of Parliament were administered with the same vigour throughout the metropolis.

UNIVERSITY OF SYDNEY.

THE authorities of the University of Sydney are about to endow, with other professorships, a Challis chair of Anatomy. The salary of the new professor will be at the rate of £900 per annum, but without any participation in the lecture fees, which is surely an unwise restriction in the interests of a growing institution. He must devote his whole time to the duties of the office, and will not be allowed to engage in private tuition or practice, or in any profession or business, except with the consent of the Senate, and his salary will commence from the 1st of May next. Applications must be made to the Agent-General for New South Wales before the 19th inst.

SWIMMING AS A PART OF SCHOOL TRAINING

SOME have impeached the administration of the Board of Education on the ground that it offers, practically without cost, instruction in studies which are not essential to the maintenance of an efficient average of national intelligence. Accomplishments, it is argued, not without reason, may be purchased by those who value them without the expenditure of public money. No such objection, we feel certain, could properly be urged against the incorporation of a fairly extensive system of physical exercise into the ordinary school work. True, in its general application, this assertion is particularly true in its reference to the art of swimming. As a form of gymnastic movement, and an aid to cleanliness, it is alike valuable, especially to children attending town schools. As our principal safeguard against the risk of drowning it is simply indispensable. It is, further, most easy to learn, and once learnt is never forgotten. We have therefore observed with much satisfaction a growing tendency not only in Board schools, but in schools generally, to include the teaching of swimming in the regular course of education. The latest advance in this direction is a very decided one taken by the School Board of Aston Manor, Birmingham. It consists in a resolution to erect swimming-baths for the benefit of the scholars, and the project, it appears, has been approved by the Education Department. Into the financial ethics of this new departure we need not enter. In many districts, happily, no such extensive reform would be required in order to secure the end in view. Public baths are to be found in many inland towns, and might at set times be utilised by the school children. For others educated at the coast no such provision is required. What is in every case necessary is that swimming should be recognised in the regular educational course, and taught by competent persons (who might hold some other office besides) to every boy and girl.

DEATHS FROM PARAFFIN LAMPS.

ON the 9th of this month two inquests were held in Liverpool in regard to deaths occasioned by paraffin lamps. In one case the old mistake was made of trying to extinguish the lamp by blowing down the chimney. The mixture of hot air and vapour in the cistern were ignited and a man was burnt to death. In the other case a woman went to sleep with a lamp burning near her bed. It is said that during the night the lamp exploded and set fire to the bedding, and this time also a life was sacrificed. The causes of such accidents and the conditions of danger have repeatedly been explained, but as ignorance is still rife and fatal disasters still occur very frequently, it is necessary from time to time to repeat the lessons. First, then, let it be remembered that petroleum oil—for it is almost certain that foreign petroleum and not the artificially made paraffin oil was used in the lamps—contains naturally a good deal of the light, volatile, and easily exploded oil known commonly as petroleum spirit. An Act of Parliament directs that this spirit shall be properly removed before the oil is sold in shops, and a vigilant supervision should at all times be exercised over the oil offered for sale to the unsuspicious public. But this supervision is too often eluded or neglected; and if the facts are correctly reported there can be no doubt that, at any rate in the second accident, and probably in the first also, the oil used would not have satisfied the Parliamentary test. If the oil had been examined, the "flash point"—that is, the temperature at which a miniature explosion follows the application of a light to the oil—would almost certainly have been found to be too low. The spontaneous explosion of a mineral oil lamp is fortunately not a common although by no means a novel phenomenon. It points unmistakably to the use of an oil the sale of which is dangerous and illegal. As to the other disaster, it is foolish, dangerous, and totally unnecessary to put out a lamp by blowing down the chimney. When the wick is turned down to a certain point, very easily found, the flame flickers and goes out in a minute or two. But the dangers of mineral oil lamps are by no means confined to the two which were illustrated by the late deaths. An oil lamp should never be carried about, and if, as often happens, it be a small and unstable one, it should stand on a safe shelf or table, where there is no chance of its being upset. In the mean time, we commend to the authorities of Liverpool and other towns and villages the importance of a frequent examination of the oil sold in such enormous quantities in the shops. The use of mineral oil has increased rapidly of late, and has brought with it a great boon to the poor as well as the rich. But this renders it only the more necessary that vigilant care should be exercised in regard to its quality. We see that the Birmingham Watch Committee have decided to call the attention of the Home Secretary to the dangers attending the storage of petroleum in shops. They are quite right, but we trust that, pending their petition, they are using the powers they already possess by scrutinising the quality of the oil which is stored.

EPIDEMIC OF PEMPHIGUS.

AN epidemic of pemphigus has recently occurred amongst young children in Brussels, sixteen cases having been treated in the Hospice des Enfants Assistés under the care of Dr. Max. The ages of the subjects varied from two days to thirteen months. The eruption generally affected the thighs and abdomen, sometimes other parts of the surface, but never the palms of the hands or the soles of the feet. Red patches were first seen, and upon these there soon appeared bullæ, varying in size from that of a lentil to that of a walnut. Their number was usually inversely proportional to their size and to their age, and their contents, which were quite clear, did not become purulent except where the general health of the subject was bad. The cases ran a mild course, and were treated by pricking the bullæ and dusting them over with starch powder or subnitrate of bismuth. A starch bath was also given daily. No case of the transference of the affection to an adult was observed, though it has been demonstrated by Vidal and by Colzat that adults can be inoculated successfully from the liquid in the bullæ, and a special bacillus has been described by Gibier.

CHEMISTS AND THE MEDICAL PROFESSION.

THE ancient grumble against the practice of prescribing by chemists has recently been revived in New Zealand, and has followed familiar lines, and elicited the usual arguments in favour of and against the custom. The Medical Association of New Zealand brought forward a Medical Practitioners Bill which, amongst other things, provides for the imposition of a heavy fine upon anyone who, not being a registered medical practitioner, "practises for gain or uses the designation 'consultant.'" Matters were not improved when, in reply to remonstrances from the pharmacists, it was explained that the Bill was mainly directed against "quacks." So long as general practitioners continue to dispense their own medicines these misunderstandings are certain to arise, and chemists will claim to prescribe common and simple remedies for what they designate trivial ailments. In many cases, doubtless, the patient may recover, but whether on account of the remedies employed, or because the counter diagnosis was correct, is at least open to doubt. The due recognition of the trivial or serious nature of a malady is not a matter of indifference.

The *vis medicatrix naturæ* may often be trusted, and the chemist may be relied upon not to give dangerous doses; but in spite of these two comforting reflections, there is still an element of danger. Faith healing is beneficial occasionally, but it is not to be trusted too implicitly.

THE USURPATION OF HOSPITAL TITLES.

THE French medical press has found it necessary to issue a protest against the usurpation of titles by medical men, a protest which is perhaps not unneeded on this side of the Channel. It seems that a good many practitioners are fond of describing themselves as *ex internes des hôpitaux*, which is about equivalent to styling oneself "formerly house surgeon (or house physician) to a London hospital." In some cases these men have never been *internes* or even *externes*—a class somewhat equivalent to our senior or full dressers or clinical clerks,—and have never had the temerity to compete for these appointments, which are all given after a competitive oral examination styled a *concours*. In other cases they have really been *internes*, but only in the pharmaceutical department of one of the great hospitals, or perhaps in the wards of some workhouse or other infirmary in Paris or in the provinces, where the competition is not very severe, or where, as in some cases, the appointments are obtained by interest. Another way by which practitioners sometimes endeavour to impose on their patients is by describing themselves as hospital physicians, and in order to give colour to the statement these gentlemen tell their patients to address letters to them at such-and-such a hospital, making it "all right," of course, with the porter, and ostentatiously driving up to the door and letting their carriages be *en évidence* in the court-yard. This reminds us of a well-known story of a cheap dispensary practitioner near London who, it was related, after a "chronic" studentship, succeeded in persuading the somewhat lenient examiners of a certain licensing corporation that he was fit to be entrusted with the lives of Her Majesty's subjects, but who nevertheless was firmly believed by many of his patients to have the sole charge of his old hospital every Sunday. It is difficult to suggest any legal means which would put a stop to the assumption of titles by unauthorised persons, and it is probably hopeless to expect.

THE SEAMEN'S CONGRESS AND THEIR GRIEVANCES.

THE first annual Congress of the Amalgamated Sailors' and Firemen's Union of Great Britain and Ireland was held at Cardiff last week, when about sixty delegates, representing some 70,000 seafaring men, drew public attention to important subjects bearing upon the sanitary environment of seamen afloat, specially to the case of firemen and coal trimmers, a class who are practically the backbone in the steam department of our British Mercantile Marine, upon whose physical health, efficiency, and "staying powers" the engineers anxiously rely for maintaining the high rate of speed of our modern steamships. The grievances of this class may be thus briefly summarised:—Defective ventilation of firemen's rooms when situated on a lower deck near the hot machinery; when located on the upper deck the absence of steam apparatus for warmth and dryness; often no arrangement for drying their wet clothes elsewhere than in their rooms, or by hanging them in a position exposed to the eyes of passengers, objected to, and properly so, by the commander; bath-rooms for personal cleanliness are the exception instead of the rule; their duties too often exceed the regulation four-hour watches, the strain of an extra two hours acting injuriously on their health; that the attention of the ship's surgeon being mostly confined to passengers, he is not only discouraged in any inclination to inspect their rooms, but is only sent for there to see a fireman too ill to walk to the surgery; the surgeon, moreover, is often young and inexperienced. These complaints, we are assured, are based upon facts, and we trust that one practical result of the Congress will be improved sanitation aboard, and on the part of the Seamen's Union a supply of healthy, sober, and efficient firemen.

JAMES PRESCOTT JOULE.

FEW greater or more successful workers in science have ever lived than he who died at Sale on Friday, the 11th inst., after many years of infirm health. It is too soon to appraise the full value of his discoveries, but this much is certain, that the name of Joule will take a place in the history of science parallel with, and in honour hardly inferior to, those of Dalton and Darwin. It may almost be said that Joule made physics an exact science. Such a statement would, of course, be paradoxical, for many good workers preceded, accompanied, and followed him. In his greatest work, the determination of the mechanical equivalent of heat, Joule was not wholly original, for that wonderful genius, Meyer of Heilbronn, a provincial physician, had very shortly before, and unknown to the English physicist, worked out the main conclusions on paper from theoretical considerations. But all this detracts nothing from the glory of Joule, who, by the most patient and intelligent labour, did the work and fixed the equivalent, which is now the starting-point in so many studies in physics, chemistry, and biology. In the lustre of Joule's greatest achievement his minor discoveries may possibly be overlooked. Fortunately, the Physical Society of London have recently collected and printed his works, so that their full value may easily be estimated. In some of them he was associated with Sir Lyon Playfair, who has given to statecraft a mind which was meant for science.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

AN examination for the certificate in psychological Medicine, given by the Medico-Psychological Association, will be held in December. Candidates intending to present themselves for examination are requested to apply for particulars, and give fourteen days' notice in writing (unless unavoidably prevented), to either the general secretary of the Association, Dr. Fletcher Beach, Darenth Asylum, Dartford; the secretary for Scotland, Dr. Urquhart, Murray's Asylum, Perth; or the secretary for Ireland, Mr. Conolly Norman, Richmond Asylum, Dublin, accordingly as they desire to be examined in London, Edinburgh, or Dublin. The exact date of the examination and further particulars will be announced in due course.

DIPHTHERIA.

DR. T. G. ROBINSON of St. Louis, in a paper on Diphtheria read at the Association of American Physicians, concludes that this disease is acutely infectious, doubtless due to a living organism (microbe), the exact identity of which cannot yet be regarded as settled; that it is primarily local, the system being generally infected secondarily through absorption of poison generated at the primary seat of inoculation; that the contagium may be transferred in a dry state through air for limited distances, in foul clothing, and in polluted food and drink, especially milk. Until the problem of the conditions favourable to the growth and development of the germs is solved, and their life history and habitat are understood, no "definite plan can be formulated for the arrest of the contagium, nor for the hopeful treatment of the disease." He points out that although often not strictly a filth disease, nevertheless

certain kinds of filth—as the ordure of animals, and notably the refuse of cowsheds and dairies—afford favourable conditions for the culture of the diphtheritic germ.

HOT-AIR INHALATIONS IN PHTHISIS.

AT the recent meeting of the Association of American Physicians (*Med. News*, Sept. 28th), Dr. Trudean reported the results of the treatment of four cases of pulmonary tuberculosis by Weigert's method. Clinical evidence did not show any appreciable result, and no effect was produced by the method either in diminishing the number of bacilli in the sputa or impairing their virulence, as tested by inoculation.

A "MUTUAL AUTOPSY SOCIETY."

THE death of General Faidherbe, who was one of its members, has brought this curious Society somewhat prominently into the light. Its existence is not a thing very generally known, although its origin is by no means of quite recent date. According to M. Laborde, the vice-president, who has recently been explaining the objects of the Society to the public, it was founded because up to the time of its foundation the opportunities of making post-mortem examinations were almost entirely confined to hospital physicians, and even then they made the examination on subjects about whose previous history, outside their medical one, very little or nothing was known. But, there being an intimate relation between the structure of the brain and its functions, the members of the "Mutual Autopsy Society" hold that very little real scientific progress will be made until it is possible to study the brains of persons previously known either by their deeds or by their works. The members therefore formed themselves into this Society, which addresses itself to everyone having the interests of humanity and science at heart, as well as to those who, having been useful during life, have the laudable ambition to be useful after death. Enrolled as members are several ladies; and amongst the remarkable men whose brains have been examined by the Society are Gambetta and Broca. The third convolution in the great orator's brain was anticipated to be well developed, and, as a matter of fact, it was found post mortem that this convolution so intimately associated with speech was much more developed than is generally the case, even in intelligent men.

DIPHTHERIA AT UXBRIDGE.

WE learn that diphtheria has become persistently prevalent at Uxbridge, and that the local authority and their officers have, as yet, been unable to ascertain the cause of it. By some it is suggested that insuction into the water mains is responsible for the outbreak; but water pollution, whether by an occasional or a permanent cause, cannot often be credited with the spread of diphtheria. Application has been made to the Local Government Board for an inquiry into the subject, and the visit of a medical inspector has been promised.

"COMPULSORY VACCINATION."

IN our issue of last week under the above heading, we commented on statements made at a recent meeting at Guildford. We said that the audience was told that in Sheffield during the last small-pox epidemic, "eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." We then proceeded to show from Dr. Barry's report that the story as to Sheffield was without foundation. We have now received a letter from Mr. Alfred Milnes, M.A. Lond., F.S.S., stating that this event occurred at Perth, and asking us to withdraw our statement. He encloses a copy of the *Surrey Advertiser and County Times* of Oct. 5th, which contains a report of his address and which shows clearly enough that Mr. Milnes referred to an outbreak in the Perth Infirmary and not to any occurrence in Sheffield. We therefore owe Mr. Milnes an apology, and desire to state that our comments were based upon a report of his address in the *West Surrey Times* of Oct. 5th, which reported him as follows: "In Sheffield, where the percentage of vaccinated persons was 95, between March and December, 1887, there were 2728 cases of small-pox. Eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." At the present moment we are not in a position to discuss the accuracy of his story in its relation to Perth, but we may do so on a future occasion.

APPOINTMENT OF MEDICAL OFFICER OF HEALTH AT WOOLWICH.

OWING to some oversight in the legislation of the past, Woolwich has hitherto been in the rather curious position of being under no obligation to appoint a medical officer of health. Now at last the local authorities have been compelled to do as their neighbours do, and so they are proposing to appoint a medical officer at a salary of £100 a year, which, as such appointments go, may be regarded as a fair remuneration, considering the limited area of the town and the fact that a large part of it is under the charge of the military authorities, who usually appoint one of their most efficient medical officers to perform the "sanitary duties." The principal practitioners of Woolwich have petitioned the Local Board to appoint some gentleman who is not in practice in the locality, but who is fully acquainted with the conditions under which practice is carried on.

THE NEW ENTRIES.

THE following is a list of the fresh entries for the current winter session (1889–90) at the various medical schools from which returns have been received, together with a column giving the totals for the winter session of 1888–89, for purposes of comparison.

	Entire Course.	Special, Dental, or Preliminary Classes.	Total.	Totals, 1888-89.
St. Bartholomew's	108	37*	145	128
Charing-cross	55	5	60	68
St George's	31	2	33	33
Guy's	91	53	144	103
King's College	37	41	78	111
London	75	40	115	120
St. Mary's	55	8	63	111
Middlesex	43	68	111	102
St. Thomas's	71	41	112	126
University College	61	93	154	153
Westminster	21	13	34	23
Birmingham	37	50	87	†
Newcastle-on-Tyne	42	21	63	68

* Students for the Preliminary Scientific Examination are not counted as students of this hospital. † No return.

TUBERCULOUS MEAT.

THE recent decision at Glasgow respecting tuberculous meat has naturally occasioned increased vigilance on the part of meat inspectors, and has already caused in Sheffield a movement among butchers to attempt the establishment of some definite rules for the condemnation of the flesh of tuberculous beasts. It is contended that when the affected animal is in the early stage of the disease the meat cannot be considered unwholesome, although this contention, however, did not find favour with the experts examined at Glasgow. This view was, indeed, expressed by a deputation of the Sheffield Butchers' Association to the Health Com-

mittee on the 10th inst., which requested that the medical officer of health in the examination of carcases of suspicious quality should act in conjunction with a jury of three butchers, and a veterinary surgeon appointed by them. After hearing the deputation the committee adjourned the consideration of the question until its next meeting.

CASEINE.

AN investigation that adds to our knowledge of the nature of a substance of physiological as well as of chemical importance, such as the albuminoid body caseine, cannot fail to be full of interest. Hlasiwetz and Habermann some time back obtained leucine, tyrosine, glutamic acid, aspartic acid, ammonia, and a viscid uncrystallisable liquid by treating caseine with stannous chloride and strong hydrochloric acid. Since then E. Drechsel has turned his attention to the uncrystallisable liquid so obtained.[1] He has found that by treating this liquid with phosphotungstic acid a precipitate is produced. This was washed with dilute sulphuric acid, heated with baryta water, and filtered. The clear filtrate, after removing excess of barium, was then evaporated with hydrochloric acid. In this manner he got the hydrochloride of a strong base, having the formula $C_7H_{14}N_2O_2Cl_2$. This yielded when treated with chloride of platinum long reddish-yellow prisms of the platinochloride $C_7H_{14}N_2O_2PtCl_6+4H_2O$. Platinic chloride gave also with the mother-liquor from the hydrochloride above a platinochloride which, as may be seen from its formula, $C_8H_{16}N_2O_2PtCl_6$, is homologous with the first.

PROFESSOR JOHN MARSHALL.

WE are glad to learn that Professor John Marshall, President of the General Medical Council, has quite recovered from his recent indisposition. It will be remembered that Professor Marshall was prevented by a somewhat severe cold from delivering his introductory address at the sessional opening of the School of Pharmacy, the address being accordingly read on his behalf by Professor Attfield.

INFECTIOUS DISEASES IN SALFORD.

THE want of accommodation for infectious diseases in Salford, together with the existence of overcrowding in the Wilton Hospital, is causing a good deal of feeling in the borough, and the Working Men's Sanitary Association have now taken up the question, and have passed a resolution condemnatory of the present state of affairs. Probably some temporary arrangement will at once be made for the isolation of the excess of diphtheria and scarlatina patients; but we trust that after the present experience no further delay will occur in proceeding to complete adequate permanent accommodation for the borough infectious cases.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—A special examination was recently held, by direction of the Minister of Education, for the purpose of "Nostrificating" the Edinburgh M.D. held by Dr. John Brodie, who is engaged in attending the workpeople of a company in Nagy-Bánya. As the candidate was not acquainted with the Hungarian language the examination was conducted with the help of a sworn interpreter. The subjects included were Surgery, Medicine, Forensic Medicine, and Hygiene, and the examination seems to have been entirely oral. Dr. Brodie satisfied the examiners, and was granted the *ad eundem* degree of the University, this being the first instance in which such a circumstance has occurred. Usually any foreigner desiring to obtain an Austrian medical degree is required as a preliminary step to become an Austrian subject. It is not stated that this condition was insisted on in the present instance.

Göttingen.—The new surgical clinic in the Ernst-August Hospital has just been opened.

Heidelberg.—Dr. Fritz Bessel-Hagen, whose researches in anthropology are well known, has been raised to the rank of Extraordinary Professor.

Lausanne.—Dr. Bourget of Geneva has been appointed Professor of Materia Medica and Therapeutics.

Liège.—Dr. Fraipont has been entrusted with the theoretical and clinical lectures on Midwifery. A good deal of discussion has recently taken place concerning the medical arrangements connected with the University. Amongst other matters there seems to be a great want of teachers of clinical specialties, and, on the other hand, a redundance of surgical and medical assistants, including several *chefs de clinique*, who are said to be superfluous. Comparisons are freely drawn between this, which is a "State University," and Brussels and Louvain, which are free universities, these latter institutions being, as it would seem, better provided with clinics and clinical teachers.

Munich.—An Extraordinary Professorship of Clinical Medicine and another of Inorganic Chemistry is to be founded, and a Pharmacological Institute established. The last is to cost about £1500.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Emil Zeising, Assistant Physician in the Dermatological Clinic, Breslau.—Professor Nagous of Lyons, who was, together with a Sister of Mercy, stabbed by a patient upon whom he was about to operate, and who, not being as fully under the influence of chloroform as was supposed, was so enraged at the touch of the knife that he snatched the instrument, and before he could be stopped had plunged it into the hearts of the unfortunate professor and the sister in attendance. The Courts will have to decide how far the man was morally responsible.

THE Library of the Royal College of Surgeons of England will be kept open until 9 P.M. for the remainder of the year. There has been a wish expressed by various members of the profession that the Library might be available for a longer time during the day, and the Council agreed at the quarterly meeting held on Thursday, the 17th inst., to keep it open from 11 A.M. to 9 P.M. Should sufficient readers avail themselves of the advantages thus offered, the hours will probably remain as thus changed.

CESENA, in the Romagna, not far from the Adriatic seaboard, is now a health resort, in which the resources of the place for mineral baths and for the "climatic cure" are intelligently and carefully utilised in a well-appointed establishment. Year by year Italy is availing herself of her natural advantages for such institutions, in pursuance of the movement initiated *ad hoc* at Bologna, and continued at the thirteenth congress, which lately concluded its sittings at Padua.

THE next meeting of the Royal Medical and Chirurgical Society will, as announced in our advertisement columns, be held on Tuesday, the 22nd inst., at the Society's new house, 20, Hanover-square, in a portion of the library temporarily adapted for the purpose.

OF the 557 members returned at the recent general elections to serve in the French Chamber of Deputies, 48 are doctors of medicine, 4 are druggists, 1 is a dentist, and 1 a veterinarian.

[1] Journal für Praktische Chemie [2], vol. xxxix. pp. 425–429.

Pharmacology and Therapeutics.

TOXIC EFFECT OF CREOLIN VAPOUR.

A CASE of poisoning by creolin vapour is reported by Dr. Stille-Ihlienworth in the *Memorabilien* of July. The author had to procure premature delivery in a case of contracted pelvis, and used as a disinfectant for his hands and instruments an emulsion containing 1½ per cent. of creolin, which from the afternoon until the next morning stood in two open saucers in the next room. In the evening he complained of pain in the right temple and occiput, and his pulse rose from 70 to 100. When he moved about the latter even rose to 120, and the carotids pulsated very perceptibly. These symptoms only ceased a few hours after he had gone into the fresh air. All the other people who had been present in the room became similarly affected, and one suffered more severely, vomiting supervening on the other symptoms. Returning the next afternoon to the patient's house, the writer felt quite well. He again prepared two saucers of creolin, dipped his hands into the solution, examined his patient, removed the catheter, which in the morning had been inserted between the wall of the uterus and the membranes, washed his hands, and carefully disinfected the catheter. The same symptoms reappearing, he entertained no doubt that the creolin vapour was the cause of the seizure. The saucers with the disinfectant were then removed, and only brought back when they were actually wanted, and no further abnormal symptoms appeared.

CHRYSAROBIN IN HÆMORRHOIDS.

Dr. Kosobudski, writing in the *Russkaya Meditsina* on Unna's plan of treating hæmorrhoids with chrysarobin, says that he has employed it—or a modification of it—in twenty-two cases, and has found it on the whole very satisfactory. He does not, however, employ quite such strong preparations as Unna. His plan is to wash the hæmorrhoid with a weak carbolic or creolin lotion and then to dry it well with cotton wool, after which he applies three or four times a day an ointment consisting of chrysarobin 8 parts, iodoform 3 parts, extract of belladonna 6 parts, and vaseline 150 parts. For internal piles suppositories are employed, which are composed as follows: Chrysarobin, 1 gr.; iodoform, ¼ gr.; extract of belladonna, ½ gr.; cacao butter, 30 gr.; glycerine sufficient to enable the mass to be made into the form of a suppository. If there is much hæmorrhage a tannin suppository must be used. After three or four days of this treatment the pain and hæmorrhage disappear, and after three months or so the hæmorrhoids are found to have almost completely shrivelled up.

HYDRASTIS IN MEMBRANOUS DYSMENORRHŒA.

Dr. Franz Jordán relates in a Hungarian medical journal an interesting case of most obstinate membranous dysmenorrhœa in which after many years had been spent in trying all manner of different methods of treatment hydrastis canadensis rapidly effected a cure. Dr. Jordán employed the liquid extract of hydrastis canadensis, twenty-five drops of which he ordered twice a day. This very soon began to produce an appreciable effect, and after a short time the medicine was required only at the time of menstruation or for a few days previously, the loss of blood becoming very slight, and the pain disappearing altogether.

IS PHENACETIN A REMEDY IN WHOOPING-COUGH?

Dr. R. Heimann of Laudau answers the above question affirmatively, having used the drug experimentally in a case in which antipyrin entirely failed. The success was so surprising that he administered the drug in two other cases. It reduced the number of paroxysms, which had been from ten to fifteen per diem, to three, and on some days they entirely ceased, only reappearing at night, when no phenacetin was given. Dr. Heimann gave a boy of three years six grains in four doses of one grain and a half, a girl of two years five grains in three doses, and an infant of seven months three grains in four doses, without observing the slightest ill effects. One grain and a half of phenacetin would, on the average, retain its effect for three hours. The author recommends further trials of the drug.

IODIDE OF POTASSIUM A CARDIAC TONIC.

M. G. Sée has recently pointed out, before the Academy of Medicine, that iodide of potassium, far from being a depressant, is really a cardiac tonic, of almost equal value to digitalis or strophanthus in certain cases. Indeed, he says that iodide of potassium is the real cardiac drug (*vrai médicament du cœur*), since, when prescribed in cases of uncompensated mitral lesions or affections of the myocardium, it increases the cardiac power and raises vascular tension. Thus, by subsequently causing dilatation of the arterioles, it enables the heart to recover its power and affords also better facilities for the coronary circulation, thus improving the nutrition of the heart muscle.

DRY-AIR FROZEN FRESH FISH.

By J. LAWRENCE-HAMILTON, M.R.C.S.

No. IV.

To obtain an imperishable, cheap, healthy, abundant supply of fish food, it is necessary to bleed, gut, and clean the fish at once on capture, and then forthwith transfer the fish so treated to the dry cold air refrigerator chambers of special steamers at the fishing grounds. Much of this hard frozen fresh fish should be distributed to the fish markets, wharves, and stores situated on canals and rivers by dry-air refrigerator barges or insulated covered barges for shorter distances, whilst seaport towns could receive the fish direct from the refrigerator steamers, as well as towns like London having wide and deep rivers. As far as possible all railways should be avoided. In the United Kingdom their extortionate rates for the carriage of fish have for long oppressed the fish trades to the special injury of the poor. However, if frozen fish has to be sent long distances by rail to towns unprovided with canals, rivers, or lakes, as in some of the American cities, then special refrigerator railway fish cars are advisable.

The treatment of fish on capture.—To preserve fresh fish, free it from moisture and bacteria. Kill as quickly as possible. Where practicable, all fish immediately on capture, prior to the coagulation of the blood, should be gashed under the head just behind the gills, the usual situation of the heart in most fishes, or else above the tail, which has been the practice from time immemorial in Scandinavia and in Holland. Compared with land animals, fish have but very little blood to lose, and hence fish on being bled become at once faint, which rapidly passes into insensibility. Next speedily gut the fish so as to remove its entrails, including the liver and roe. In big valuable fish like the salmon it should also be pithed, by exposing and removing with a gutting knife the comparatively diminutive brain (a characteristic of all fishes), and then push a copper wire into its spinal canal so as to break up the substance of the spinal marrow. Removing its brain abolishes sensation and volition, whilst destroying the spinal marrow arrests all muscular movements. Finally, thoroughly clean each fish inside and outside with abundant washing in clean, fresh-flowing water, sea water being for every class of fish better than spring water. Though gutted fish keep better and longer by the addition of salt or brine into the cavity of the body, I recommend peat moss as being cheaper and much more effective. As peat moss is universally abundant in Ireland, its fishermen should use it freely.

Norwegian fishermen roughly estimate that by bleeding, gilling, and gutting flat fish about one-sixth of the total weight is lost, whilst long fish by bleeding and gutting forfeit about one-fourth of their total weight. In spawning fish, being full of roe, these proportions would be materially increased. A codfish weighing 21 lb. is said to have furnished 12 lb. of roe. Thus, especially for railway borne fish, this economy in freight would mean a great saving to the public—the fish consumers. Later I shall show the avoidable colossal commercial losses incurrred in the United Kingdom by its neglecting to judiciously work up the by-products or waste products of fish and fish refuse, which in the United States of America amounts to upwards of 14 per cent. of the total value of their fisheries.

Use of carrier pigeons and telegrams for sea fisheries.—Fishing fleets should signal by means of carrier pigeons for the refrigerator steamers to come out from the harbours to remove the catch. These carrier pigeons would be useful to the smacks in case of accident and distress, and could also

be employed by the fishermen to send messages, weighing up to two ounces, to the steamers, also to bring out any articles required by the fishermen, including food, medicines, fishing-nets, tackle, bait, and other requisites. Alighting on the platform of the pigeon house, connected with an electric bell for day and a light for night work, the pigeon announces its own arrival. Fishermen and sailors would soon learn to train and breed these carrier pigeons at a trifling cost. After a while, probably, no fishing smack would put to sea without a few carrier pigeons. The Admiralty should keep ready for use a large number of carrier pigeons, as in case of war along our coasts and colonies, these local marine messengers would be invaluable, especially to ships of war and torpedo vessels defending our coasts, mouths of rivers, and harbours.

Night and day, along the chief Norwegian fishing fiords and grounds, special local telegrams inform the fishing fleets as to the location, the probable destination, and expected time of arrival of observed shoals of fish. Doubtless much might be done on our own coasts by combining and collecting information for telegraphic purposes brought by these carrier pigeons as to the probable course of various migratory shoals of fish. Like the Chinese, the Norwegians, through centuries of acquired observation, are shrewd, trained experts in noticing the habits of fish. Lately, whilst visiting the Norwegian fishing towns from Christiania to the North Cape and back, I was informed that the Norwegian Government gratuitously circulated these trade messages for the benefit and advantage of their fishermen. The Government of the United Kingdom should initiate and imitate similar plans on behalf of our chronically neglected fishermen, as, setting aside the just claims of our brave fishermen for such trade information, this would also cheapen fish, and therefore relieve some of the burdens of the taxpayers.

Dry-air refrigerator steamers.—For carrying the fish from the fishing fleets at the fishing grounds, specially constructed coal-saving refrigerator, swift steel steamers, of about 200 to 300 tons each, would be advisable. The present frozen meat ships have chambers insulated with thick layers of charcoal, though peat moss would be more economical and efficient, whilst in case of repairs from accidents peat moss is much cleaner and weighs less than charcoal. In storing hard frozen fish as far as practicable leave an air space around each big fish, whilst large valuable fish, like meat carcases, are best kept clean and undamaged by a separate canvas shirt or sack. Small fish can be packed in layers of peat moss. Men engaged in handling frozen meat use thick woollen gloves and felt shoes, with canvas suits over their clothes, whilst the engineer's assistant, who has to remove the accumulating snow from the refrigerator chambers about every four hours, is on these occasions dressed in a specially warm thick suit of woollen clothes. In the frozen meat trade for rivers and canals, covered barges insulated with felt (though peat moss would be better) are employed; whilst for longer distances specially constructed insulated covered refrigerator barges are so made that from the frozen meat ships, or else from the refrigerator wharves on shore, cold air can be pumped into them. However, the present refrigerator and insulated barges both admit and invite many economical improvements.

Dry-air frozen fresh fish is imperishable.—In Russian winters fish is naturally frozen for months, and is sawn for the retail customer. Fish is kept frozen naturally by the dry, cold, winter air in the Hudson Bay territories, in the elevated regions of Thibet, and in arctic winter climates generally. The frozen meat ships for a forty-five days passage from London to New Zealand keep fish frozen for their passengers' food, though usually omitting to have such fish previously bled and gutted. For years the Hudson Bay Company shipped frozen salmon (though *unbled* and *ungutted*) to London, Australia, New Zealand, &c., but now the Canadians find that it pays them better to deal with the United States. Salmon brought from Labrador in the s.s. *Diana* kept good frozen for 200 days, whilst in the Canadian Court of the 1883 London Fisheries Exhibition frozen salmon after eighteen months of such treatment was found to be excellent eating. A frozen fish trade is now carried on between Senegambia, in West Africa, and Marseilles. By means of a mixture of ice and salt a large remunerative hard frozen fresh fish trade has long been successfully carried on in the American United States, where refrigerator steamers fetch fresh fish from the fishing grounds, freeze it hard, store it as long as required in specially constructed insulated refrigerator wharves and warehouses, and when necessary deliver it frozen, in specially constructed fish refrigerator railway cars to inland distant districts unprovided with canals, rivers, or lakes. However, this salt and ice process is much dearer than the dry cold air methods.

Refrigerator insulated wharves and stores.—It is only quite recently that the dry air machinery for ships, wharves, warehouses, and railway cars has been sufficiently perfected to work well, cheaply, and regularly, so as to be commercially remunerative. Hence the first losses of the earlier introducers of the frozen-food trades are now avoidable. It is to be expected that in the near future further improvements in the economy and efficiency of the frozen-food trades will be introduced, though already, at home and abroad, several rival plans and patents compete for business. Setting aside minor details, the best processes for food freezing may be thus briefly summarised. The average temperature of the cold air in the special ships and storehouses is turned on at 70° to 80° below the zero of Fahrenheit, or upwards of 100° F. of frost. For meat the cold in these refrigerator chambers can be accurately regulated by the machinery, which usually keeps the chamber at 16° to 22° F., though in the case of fish a less amount of cold is necessary. For this purpose the air to be cooled is so greatly compressed that its temperature becomes elevated to about 240° F. This heated air then passes through a long series of pipes surrounded by cold water, which absorbs the heat of the compressed air, bringing this air down to the temperature of the cool water. This air is next let into another vessel surrounded with cold air where it deposits all its moisture, for it is essential that the air for freezing food should be freed from every trace of water or moisture. By this time the doctored and dried air has become cooled to about 70° F., when it is suddenly and rapidly expanded, and thereby becomes so intensely cold, that the air passes out of the machine at a temperature between 70° and 80° below zero, Fahrenheit, or upwards of 100 degrees of frost. This dry cold air circulates through the refrigerator chambers and afterwards returns to the compressor machinery, to be again further dried and cooled down to 70° or 80° below zero. The refrigerator chambers have walls, floors, and ceilings composed of severals layers of non-conducting or insulating materials, general charcoal, with specially constructed massive insulated doors, so as to hermetically seal the refrigerator compartments. Here the substitution of peat moss for charcoal would be an economy.

Some frozen meat removed from the refrigerator ship *Tainui* to a covered insulated barge maintained three degrees of frost after fifty-five hours, although after the first twenty-four hours had elapsed about half the frozen carcases in their canvas shirts were withdrawn. These stores are kept scrupulously clean, and usually lit up with electric light, so as to avoid injuring the food. Each carcase in its shirt is hung up separately. During 1888 London and Liverpool alone imported 1,924,000 carcases of frozen meat, which was an increase of upwards of 300 per cent. of the amount imported five years previously, or in 1884.

Quantities of imported frozen meat are often retailed by butchers and at restaurants at the high prices of freshly killed prime English meat, and paid for by the consumer as if for English meat, as he, like the skilled analytical chemist and microscopist, is unable to taste or to detect any difference in freshness or flavour between frozen and freshly killed meat. This fraudulent trading should be stopped by a special Act of Parliament, which should also forbid foreign cattle being sold as British beasts.

Percentage of Foreign Imports.

	1887.	1886.	1881-5.
Cattle (including calves, but excluding milch cows) ..	36	40	51
Sheep and lambs	51	54	55
Pigs	94	98	97

Cheap, healthy, frozen, fresh fish for the poor.—Freshly caught herrings and sprats, as well as occasionally mackerel and other fish in colossal quantities, at the fishing grounds can both at home and abroad be purchased wholesale at mere nominal prices, as such fish so rapidly decompose or putrefy that frequently coasting vessels, especially on Saturdays, either throw them back into the sea or else dispose of them for manure. Because of the now past impossibility to deliver cheap and coarse fish in a fresh,

eatable condition, and the prohibitive prices usuriously placed upon such fish by rings of non-fishermen fish auctioneers, fresh fish has not been largely or properly supplied to the poor of the United Kingdom. The dry air frozen fish trades can alone remuneratively supply fresh fish at a low price to command an extensive sale among the poor and the comparatively poor, who should thus in London be able to buy healthy gutted and bled fresh herrings with their roes at ½*d.* per lb. The average weight of an ungutted herring may be taken at about 7 oz., so about three gutted herrings would hardly weigh 1 lb. avoirdupois. The abnormally high nutritive food value, the light, easy, rapid digestibility and solubility, with its excellent and varied flavours of the flesh, the hard and soft roes, should recommend the frozen fresh herring as the poor man's special healthy food. It is often called a "two-eyed steak," or a "Billingsgate pheasant," and in other parts of the United Kingdom the red herring is variously known in popular language as a "Glasgow magistrate," a "Gourock ham," or a "Norfolk capon." The general introduction of the herring into the daily dietary of workhouses, poorhouses, asylums, prisons and the like, should effect considerable reductions in the general poor rates of town and country districts. Sprats are also excellent cheap food for the poor, and, like the herring, are palatable fresh or cured.

New kinds of food fishes.—The gradual introduction of several home and foreign fish, which, though cheap and nutritious, have by changing capricious custom hitherto been neglected or else gone out of fashion. Hence on capture by our fishermen, being unsaleable in the local markets, such fish are often thrown back into the sea, is a subject which induced some Americans in New York to found an Ichthyophagus, or fish-eaters, Club, with the sole object of introducing hitherto unrecognised fish food. A similar institution would do much good in London.

The distribution of cheap, frozen, fresh fish.—The system of bled, gutted, cleaned, dry air frozen, imperishable fresh fish properly conducted would, in a great measure, do away with the preponderating influence of the middleman, the non-fisherman fish auctioneer, whose market rings or combinations have hitherto kept fish not alone at usurious prices, but have also supplied fish always more or less deteriorated in quality, often uneatable, sometimes unfit for human food, and occasionally even poisonous. By the unavoidable introduction of frozen fish, both the fishermen and the fish vendors themselves will be great gainers, as, with an extended commerce, they will cease to deal in a perishable product, and also no longer require to waste their money on ice. In time, every large town or district will require its own refrigerator stores or depôts, where both frozen fish and meat could be preserved to supply the local traders, who would thus never have to suffer from the pecuniary loss of over-stocking themselves with perishable food. I estimate that, including all freights, costs, and charges, the wholesale selling price of fresh fish in the markets of the United Kingdom now (1889) already exceeds £15,500,000 a year. But by judiciously pushing and developing the dry air frozen fresh fish trades this wholesale commerce for home and export consumption could in a few years be made to exceed £100,000,000 a year. It would be a national disaster if foreign competition were to secure such a trade, which, in addition to its financial aspect, includes the best school in which to train sailors for our navy, a fact long recognised by the Dutch and French.

In 1636 Charles I. accepted upwards of £30,000 to allow the Dutch to finish their year's summer fishing for herrings off the coasts of England. This illustrates the value, even in those days, of the herring fisheries. Returning, however, to fish purveyors and distributors, it must be recollected that the retail markets and the fishmongers combined cannot compete in quantity with the small fish costermonger or perambulating fishmonger, who is the most useful and extensive fish vendor. To the fish costermonger the system of frozen fish would be as great a boon and a blessing as it would be to the poor and to the comparatively poor. These costermongers are generally but small capitalists, and indeed not unfrequently borrowers, requiring to sell their first load before they can afford to purchase a second lot. Hence, as soon as they had sold one cargo, they could with these returns and profits purchase a further supply from the refrigerator stores, and thus, doing an extensive increased business, they would be able to earn more money whilst selling better and cheaper fish to the poor. By a police law of the City no fish carts or barrows may remain near Billingsgate after 9 in the morning; so, should a costermonger require to replenish his stock, even at 11 in the morning, this anomalous market has practically ceased to exist for that day. It is useless for the poor to make hard sacrifices by long strikes so as to get higher wages unless they can also obtain better, cheaper, healthier and more abundant food. Hitherto the chief increase of their wages has been virtually almost useless, because it has not been combined with suitable food at lower prices and better value, an all-important fact which is too often entirely overlooked and ignored. Therefore these strikes practically chiefly benefit the middleman.

Frozen fish at unvarying prices.—The poor are naturally puzzled, perplexed, and frightened at the present ever-varying and fluctuating prices of the same kind of fish under the existing wasteful fish-destroying systems, and is another reason why they will welcome the advent of frozen fish. The total supply of frozen fish will be quite independent of local fogs, storms, calms, and the catch of the preceding twenty-four hours. Frozen fish should therefore remain all through the year at constant prices.

Cheap cooked fish for the poor.—Not alone do the poor require close at hand cheap fresh fish, but as many of them have often to work miles away from their homes, it is to be hoped that the introduction of frozen fish will result in numerous local retailers selling healthy cheap cooked fried fish. It is evident that it is no practical economy for a workman himself, distant from his home, to be able to buy cheap fish if its cooking costs him not alone too much for fuel, but further involves his sacrificing an hour's work or more to make up a fire to cook a single herring for his meal. At present it is a notorious fact that much of the fried fish sold to the poor is fish which is more or less bad and decomposed, and would be unsaleable in the uncooked state. Hence the true commercial saying among some of these fried fish vendors, that "*Frying a fish saves its life.*" It is evident that such fish is likely to produce passing disease among those whom stern necessity, hunger, and poverty compel to eat food which, under a proper system of inspection, could not be sold.

The signs of bad fish.—Among the indications of decomposed fish are external and internal bleeding and clotting, which clotting is intensified by cooking, and is so frequently seen extending along the backbone of cooked fish. Cloudy, opaque, sunken eyes; dry looking gills; flabby, soft, insipid flesh; a fishy smell; loss of brightness and brilliancy about the scales; any luminosity or phosphorescence in the dark. When cooked a sour or acid taste, with darkened clotted blood, indicate decomposed fish. The blackening of a silver spoon indicates sulphur, a product of fish decomposition. In Italy cured fish is tested by introducing a skewer whose subsequent odour indicates the condition of the fish.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress on Climatology and Hydrology.—The Perfumery Section.

THE International Climatological and Hydrological Congress has just held its sittings at the École de Médecine. This is the second congress of the series, the first being held at Biarritz in October, 1886. Unfortunately the present season is not so favourable. Medical men are thoroughly exhausted by the great number of congresses that have met during the Exhibition, and these have all suffered from mutual competition. Nevertheless fourteen different Governments have sent official representatives to the congress, notably the Belgian, Dutch, Italian, Spanish, Austro-Hungarian, Mexican, and Turkish Governments. There are also unofficial delegates from England, the United States, Switzerland, and other countries. The opening sitting was held at the Trocadero, and the subsequent meetings at the École de Médecine. M. Renou, director of the Observatory of Saint Maur and vice-president of the French Meteorological Society, was elected president, and Dr. Winternitz, of Vienna, delegated by the Austro-Hungarian Government, was elected as foreign president of the congress. In his opening observations the French President said that where good springs existed the climatic and general conditions

were sometimes unfavourable, therefore it was absolutely necessary to study both questions simultaneously. Unfortunately meteorology and climatology were sciences much behind date. Also there were any number of amateur meteorologists who, by their incorrect observations, caused more confusion than need be. If these amateurs would first consult the meteorological institutions, and would consent to receive instruction and have the accuracy of their instruments tested, much more satisfactory results would be secured.

The afternoon sitting on the second day was opened by the delegate from the town of Pau, who urged the importance of a uniform system of meteorological observations. He complained that the climate of Pau had been misrepresented by Dr. Weber of the London German Hospital, who had quoted Dr. Williams's animadversions against Pau. There are variations of temperature from year to year, and it was necessary to study the average temperature, not of the whole year, but of the months when such towns were frequented by patients. For instance, at Pau it was necessary not merely to indicate the direction of the prevailing winds, but to add the local circumstance that it was precisely to the windward of the town that the pine-wood forests were situated. It was further very necessary to find out what were the "medical hours" of the day. It was not the climate of a station, the average climate that the patient experienced, but the climate of those special and favourable hours that are known as the medical day.

Dr. Danaciano Moralès, professor at the University of Mexico, and delegate of the Mexican Government, gave some description of the various health resorts of Mexico. These in time would, he said, deservedly be as well known and as popular as the similar stations in Europe. At some of these stations there was already excellent hotel accommodation. Being so near to the tropics, and yet enjoying a mild climate in consequence of their elevated positions, these stations offered exceptional conditions and possessed mineral springs of great value. When, however, the speaker entered into an analytic description of these waters, their virtue was challenged by several members of the Congress. M. Labut said that great abuse had been made of iron waters. Those that were serviceable for medical purposes were very rare indeed. In some cases, notably in the neighbourhood of Milan, the chalybeate waters were so strong that they had to be given a teaspoonful at a time, and this mixed with a large quantity of ordinary water. Water containing iron could be found in all directions, but the iron was precipitated by contact with the air, or other chemicals in the water neutralised its therapeutic utility. Thus, in all France no good iron waters could be found. Those of Orezza in Corsica were really suitable for medical purposes, but the accommodation was so bad that patients could not be sent there. Close over the frontier there were some excellent chalybeate springs—those of Spa in Belgium. But even these had been exaggerated. There were also good iron springs in Germany, though they did not equal the waters of Spa. It was, therefore, necessary to be very careful in this respect. A mere analysis did not suffice; waters might contain a great quantity of iron, but not in such a condition as to render its assimilation possible.

After M. Marcailhon had made some remarks on the waters of the Fontaine aux Fromages at Ariège, M. Mendes Guerreiro, civil engineer, and delegate from Portugal, insisted that it was not only the climate that should be studied but also the soil. The climate, if estimated only by meteorological observations, might be excellent and yet the mortality be very high. The soil, under the best of climates, might be the cause of decimating diseases. Thus the piercing of the Panama Canal seems likely to prove a failure because proper precautions had not been taken with regard to the soil. The workers could not live in such a place. The speaker had been sent to build a reformatory in Portugal on a site where the soil was so bad that fever spread among the workmen. The difference of temperature between the day and night was equal to 30°. The dryness in summer was such that the lips cracked and bled and the trees died; yet in the lower part of the district there were marshes, and these spread malarial fever. His first precaution was to prevent the workmen going out of doors in the evening. Then he planted 100,000 eucalyptus trees, which at first had to be watered artificially. In a few years the temperature so changed that the difference between night and day was altered from 30° to only 18°. M. Guerreiro then discussed various methods for observing temperature, and thought the temperature of the soil very interesting. In Portugal he had found that at a depth in the earth of 2·40 metres there were but two degrees centigrade difference between winter and summer. M. Renou replied that at the St. Maur observatory they could discover no difference between night and day temperature if they went lower than one metre. At one metre from the surface of the soil they took daily observations. The maximum of heat at that depot occurred at ten in the evening, and the minimum of heat at ten in the morning. Consequently it was at those hours that the observations were made.

M. E. Renou, director of the St. Maur Meteorological Congress, presented three papers simultaneously. In the first he argued that thermometers were altered by being plunged into boiling water, and also insisted that thermometers were not exact at every point of the scale of degrees. Therefore it was necessary to submit thermometers to very severe checks. In his second paper he complained that observations were made under circumstances that rendered them worthless. Thus, a thermometer outside a window, warmed by the radiations from a house wall, would only fall to 5° C. while it was freezing in the open. It is best under such circumstances to suspend the thermometer in mid-air by means of a silk thread. In the third paper, dealing with weather forecast, the author regarded the barometer as the best, though not an infallible guide, and urged the utility of health stations receiving regularly the reports of the Meteorological Office. Dr. Fines pointed out that for climate stations what was wanted was a record of the temperature taken during the time when most patients went out for exercise; and M. Japa Wada, the Japanese delegate, spoke at length on cyclones and volcanoes, and their effect on the temperature of hot springs. The water he found was generally warmer before a cyclone, though it gave off less steam. Mr. G. J. Symonds said he had heard, with pleasure, that M. Renou had drawn public notice to the real quantity of rain water, and more especially of snow, that fell, for these were questions which had not yet received sufficient attention. As for the real temperature of springs, Mr. Symonds described the journey he had made in the Pyrenees on behalf of the English Royal Society, so as to verify the temperature of the hot springs in that country. He explained the precautions he had taken so as to ascertain the true temperature, even to the twentieth part of a degree centigrade. To the medical men who had assisted him and rendered him valuable service at the various stations he desired to offer his heartiest thanks, and this in the most public manner possible. With their aid he had been able to ascertain how very slight was the alteration of temperature of the springs during the course of the last fifty years.

Dr. Constantin Paul read a paper on Thermal Therapeutics in the Treatment of Cardiac Diseases. Sudden deaths occurring from the imprudent use of baths have led many medical men to warn their patients suffering from heart disease against hydropathic establishments. Nevertheless, symptomatic palpitations connected with chlorosis, anæmia, affections of the stomach, the liver, and even of the lungs are benefited at such establishments. Still more ought this to be the case in nervous palpitations. When, as a consequence of rheumatism, the auriculo-ventricular valves are affected, the waters of Dax have rendered considerable service, as also those of Aix, St. Nectaire, Mont Dore, and Néris. When the aorta or the myocardium is affected then thermal stations are most dangerous. If there is hypertrophy of the heart as the result of catarrhal disease, then relief can be obtained by the waters that reduce or cure the cause of the disease; the waters, for instance, of Eaux-Bonnes, Cauterets, Allevard, St. Honoré, Pierrefonds, and Enghien. Symptomatic hypertrophy, due to gastric affections, may be sent to Ems, Carlsbad, Vichy, Royat, Vittel, and Contrexéville.

Dr. Bouloumié read a very lengthy paper on the treatment of Renal Disease, concluding that it was necessary to study more carefully the value of the hydro-mineral treatment of albumen in urine; the morbid relations between the liver and the kidneys under the influence of mineral waters; the absolute and relative value of different mineral waters in the treatment of renal lithiasis, and particularly in the treatment of gravel in the urine. Dr. Caulet read a paper on Severe Neuralgic, Ovarian, and Uterine Diseases, which he insisted would be specially benefited by the hydro-mineral treatment. Dr. Grimand followed with a paper on Hydro-mineral Treatment of Tuberculosis of the Bones, and Dr.

Jules Simon on Sea-bathing for Children. The latter speaker also reviewed at length the various mineral waters, and described the nature of the diseases among children which would be affected by use of these waters.

Dr. Labat, member of the Hydrological Society of Paris, who has visited almost every winter and thermal station of England and Europe, spoke several times during the Congress. He also read a very interesting paper on the classification of these stations. In accomplishing this very difficult task he displayed great impartiality and moderation. There were, he thought, three great categories of climate—the plain, the mountain, and the sea; and these, according to whether they were hot or cold, became summer or winter stations. The mountain stations were quite new in the history of the climatic treatment of disease; but he thought the effect produced was generally due to the change of temperature, and not to the rarefaction of the air. It had been shown that the temperature fell 1° C. for every 165 metres of elevation. The Engadine, St. Moritz, La Maloja, were situated at an altitude of about 1800 metres; Tarasp, Bormio, San Martino, were below 1400 metres; Davos, 1550 metres; the Kaltbad of the Righi, 1440; Panticosa, in Spain, 1600 metres; and Barèges, in France, 1250. At these smaller altitudes the slight reduction in the quantity of oxygen is compensated for by the greater density of the air produced by the cold and by the greater activity of the respiratory movements. Jourdanet's theory on "respiratory diet" can only be applied at such stations as Quito, 3000 metres; or Mexico, 2300 metres, and at Dittinghur, 4700 metres; Darjeeling, 2440 metres, or in Switzerland, at the Hôtel de Viesch, 2500 metres. Because the natives of these elevated regions do not suffer from phthisis, therefore, people had jumped to the conclusion that the climate would cure this dread disease. This, however, did not follow. He had found that these mountain stations were generally situated in a high valley at the foot of a big mountain that sheltered them from the north and left them fully exposed to the sun. The topographical position, in fact, was similar to that of a Riviera winter resort. When the weather was fine and the sun shone there was no harm in taking out-door exercise. To this the German doctors have added cold frictions and "pulmonary gymnastics." Satisfactory results had been obtained. But, after all, what was injurious was not the cold of winter; it was the damp, the wind, and the want of sunshine. It was in this respect that mountain resorts were useful. But great precautions should be taken. Disasters had occurred, and some persons, who thought themselves nearly well, went to the mountain stations to complete their cure; and there, on the contrary, the disease met its fatal termination. With regard to the maritime climates, there was a terrible warfare between the South-west, Pau, Biarritz, &c., and the Riviera, Nice, Cannes, &c. The former had greater stability of temperature, and there was not the terrible mistral wind; but then they had violent south-westerly gales, a damp atmosphere, and a cloudy sky. Dr. Labat was ready to admit that there was much to be said on both sides; but the Riviera in any case had the advantage of a brighter sky, a more beautiful sea, and these could not but have a great mental effect on the patient. The real secret was the selection of the site for the building of the sanatorium. On the Riviera there were climates as bad as the worst that could be found in Europe; but at Carabancelle, at Beaulieu, and at Monte Carlo the shelter was perfect and the climate admirable. There was a warm temperature on the south coast of England, and the west coasts of Scotland, but when the sky is not clear the spirit is depressed by sadness, and this places the patient in a bad condition for recovery. If the sun shines, even though the thermometer does not record a better climate, its generous rays warm the heart and the soul, keep up the activity of the skin, inspire hope, cheerfulness, and predispose the patient favourably.

Dr. Cosse of Ostend, in replying, sought to defend the sea coast climate. The winds were for the most part westerly, warm, and richly charged with ozone, and this killed the microbes. The minimum of ozone at Ostend was greater than the maximum of ozone at Brussels. Also the rain that fell at Ostend was at least a third less than that which fell a little way inland. They had much more sunshine than was generally believed. He did not attribute much importance to the salt supposed to be in the air, for he found that at a very short distance from the sea there was no salt, nor did the rain water take up any chloride of sodium from the atmosphere. It was the bath of air rather than the water which benefited the patient.

Dr. de Valcourt supported the bath and spoke of the treatment of strumous children at Cannes by sea-baths during the winter months, entering into minute details of various cases to show the good results achieved. M. Dolfus of Mulhouse had erected a sanatorium at Cannes for 120 children of the working classes. Some came from Geneva, and they began treatment in 1881. They selected a site on porphyry so that there should be no dust, and at first stopped the bathing on Nov. 15th, now they continued till Dec. 20th. After that date the bath is not compulsory, and they ask for volunteers, but nearly all the children volunteer. It is only during exceptionally bad weather that they do not bathe, so that the children during the depth of winter get something like twenty sea baths per month.

Dr. F. Chiaïs of Mentone made some able remarks concerning the increased radiation of heat resulting from dryness of atmosphere. What was wet for the skin caused the lung to experience greater dryness. When there was more than the normal dryness, then accidents arising from cold increased among those who suffered from diseases of the chest and wintered on the Riviera. The hydrometer was really more useful than the thermometer. While the latter would record the same temperature, the former would show that there was a great change in the character of the air. In January and February especially there were very dangerous perturbations, and during periods of excessive dryness patients had better remain at home. Dr. de Valcourt agreed as to the danger of the very dry air, and urged that it did not suffice to tell patients at such periods to boil water in their rooms. They very often would neglect to do so, but if told to put a few eucalyptus leaves in the water they would have more faith in the beneficent effects of the steam. The discussion continued for a considerable time, when it was urged that the most varied medicaments and climates rendered service, and instead of complaining of their number we ought to learn how better to use them.

On the Sunday the Congress enjoyed a pleasant excursion to Pierrefonds, where there are some sulphurous springs and a small hydropathic establishment. Here the Congre-s was entertained to lunch, the Mayor of Pierrefonds presiding. Time was allowed to visit the magnificent Castle of Pierrefonds, recently restored by M. Violet le Duc, and also the Château de Compiègne, where, under the Second Empire, hunts used to be organised with so much *éclat*.

The next day the Congress, refreshed by this rest, met in full force, and the discussion was opened by the reading of an important report prepared by Dr. Schlemmer on the Influence of Microbes on Thermal Therapeutics. The first question raised was whether the micro-organisms observed in mineral waters might become the cause of danger. In this respect it must be borne in mind that unless the waters are well protected they may receive microbes from the air or the soil in the immediate neighbourhood of the spring, microbes foreign to the water itself. Taking the waters of the Mont Dore in a sterilised pipette, plunged at considerable depth, he had not found that specimens thus collected gave rise to any cultures. So far he had not discovered that microbes in mineral waters had produced any special effects, whether these were added to the waters or were inherent to the waters, such as the Leptothrix ochracea of chalybeate springs, to which M. Winogradsky attributed an action in reducing sesquioxide of iron. All that science had at present demonstrated as necessary was the careful shielding of mineral springs from external contaminations. Dr. Schlemmer did not think that inhalation of bacterium termo had given any satisfactory results, but believed the study of inoffensive micro-organisms might provide new methods of dealing with digestive troubles. Considering that one single bacterium of vinegar can destroy, in twenty-four hours, a hundred times its weight of alcohol, there is in this, perhaps, a powerful agent for dealing with functional disorders. In respect to the danger of contracting phthisis at thermal stations, he thought this had been exaggerated. The risk of contagion arose solely from the sputa, and, after all, people did not, and as a rule could not, spit in the springs. In conclusion, he urged that to the antiseptic qualities of mineral waters might be attributed in part the good results achieved, and wished that the therapeutic effects of various microbes on functional disorders could be more carefully studied. Dr. Eugenio Fazio of Naples gave

some account of his researches in the same direction with regard to the mineral waters of Italy. These have been fully reported in the *Giornale Internazionale delle Scienze Medicale*, published at Naples, and Signor Fazio, who sat at the presidential table, was congratulated by the Congress on his methodical and scientific methods of proceeding. He gave illustrations of the sort of pipettes that would best secure samples of water free from outside contamination.

Subsequently Mr. Adolphe Smith opened a discussion on the necessity of Improved Sanitation at various Health and Winter Resorts. He trusted the Congress would not misunderstand the object he had in view; his interests were not connected with those of any locality or nationality. This was an international congress; its sole object was to guide, in a scientific manner, those who suffered so that they might soon be cured; and this must be done on purely scientific grounds, without stopping to consider for a moment the interests of any particular district. He was willing to assent to the asserted inferiority of the English climate; but unfortunately a great number of English patients would not repair to the Continent because they feared to encounter the bad sanitation, especially of the French, Spanish, and Italian so-called health resorts. It was only necessary to compare the death-rates to show the appalling difference that existed. In England, at seaside and health resorts, and in spite of the presence of numerous patients, there were death-rates of 12, 13, and 14 per 1000. A small town in a healthy position, where there were no factories, no accumulations of poor people, but for the most part lodging-house keepers and people fairly well off, should have a death-rate below 15 per 1000 per annum. But he had found in France and elsewhere that the death-rate in such places amounted to 22, and in one case to even 28, per 1000. This was all the more remarkable as there were fewer children in France. With the same proportion of children as in England the mortality in France would be still higher. The reason for this distressful state of affairs was not far to seek. Even to-day new houses were in course of construction with cesspools placed under the front sitting-room, so that they could be easily emptied from the street. The closets were constructed with soil pipes so large that it was impossible to cleanse them; there were no traps, and practically nothing to prevent cesspool gases entering the house. In the kitchens the leaden pipes went straight to the sewers without trap and interception. The houses were simultaneously permeated with sewer air and the emanations from the cesspool. The patient while he was out of doors enjoyed a much better climate than in England. But what was the good of a pleasant walk in the sun for three or four hours if, during the remaining twenty hours, the patient was condemned to breathe sewer air? He could understand that municipalities should hesitate to build large sewers and adopt vast expensive schemes of drainage; but domestic drainage could be very much better managed and at little or no expense. In England, in some health resorts, it was proposed to examine lodging-houses and hotels, and give diplomas as to their sanitary condition, so that visitors might have the option of selecting for residence only such places as were certified to be in a healthy condition. THE LANCET had taken an active and successful part in this campaign, and it served to arouse public opinion. Could not something similar be done on the Continent? Then there was nothing to prevent the letting of rooms where there had been cases of small-pox or scarlet fever, and where no measures of disinfection were applied. Finally, in towns where a good public water-supply existed, he found the inhabitants still supplying their lodgers with contaminated water taken from private wells. In conclusion, he felt convinced that in many health resorts of France, Italy, and Spain, the death-rate might be reduced to the extent of 40 or even 50 per cent., if a proper system of public and domestic drainage were introduced, if a supply of pure water were rendered obligatory and all private wells closed, and, finally, if all persons suffering from infectious disease were isolated and their rooms rigorously disinfected.

Several delegates rose to explain that the condition of their respective towns was not so bad as in the picture Mr. Smith had drawn. M. Labat wanted to enter a protest that it was not to be supposed that everything was perfect in England and everything was bad in France. At Manchester, at Glasgow, he had found a high rate of mortality and some dreadful slums, and he had even discovered a dirty street in Ventnor. Other speakers thought that the giving of diplomas would cause so much quarrelling and so much disturbance as not to be practical. In France the landlords could not be made to do their duty except by the force of the law, and hopes were expressed that the new Parliament would find time to legislate on the matter. M. de Valcourt said the Congress should feel indebted to Mr. Smith for having introduced a subject in which they were all so deeply interested. At Cannes they had to thank the English for what improvements had been realised. But for British tenacity nothing would have been done. A system of diplomas had been introdced at Cannes, but this was principally among the English, who sent their sanitary engineers over to see that their villas were properly drained. The high mortality occurred in the summer months among the children of the native population who lived under less favourable sanitary conditions.

Mr. Adolphe Smith, in reply, said he was just as anxious to save the life of a native child as that of a rich visitor. A high rate of infant mortality was a sure sign of bad sanitation. He willingly associated himself with the protest made by M. Labat. Everything was not perfect in England, and he had spent the last ten years of his life denouncing the bad sanitary condition of various places in Great Britain. Nowhere in Europe had he seen sights more depressing than in the slums of Glasgow. He had examined the flush tanks introduced to cleanse the sewers of Nice, he knew that sanitary bureaux had been installed in various French towns, and acknowledged that some progress was made. This was not, however, the point he wished to raise. He repeated that in small towns where there were no slums, no factories, no overcrowding and misery, the death-rate should be, and in England actually was, below 15 per 1000. On the Continent, where the population was more sober, where there was a smaller proportion of children and a very much better climate, but where in every other respect the same conditions obtained, the mortality, instead of being below 15, was often considerably above 20 per 1000. This was mainly due to sanitary defects which the members of the Congress could materially help to efface if they would take this cause energetically in hand.

On the following day (Tuesday) the Congress went to Enghien and examined the thermal establishment and the celebrated sulphur waters of that pleasant Parisian suburb. They were well received by the Municipality, and entertained to a lunch. On Wednesday the Congress discussed technical details as to the administration of baths, the pulverisation of waters for inhalations, &c.

Dr. de Rouse, the general secretary of the Congress, read a paper on the Utility of Hydrothermal Treatment of serious Utero-ovarian Complaints both before and after surgical operations; and, in the evening, entertained to dinner a number of foreign delegates. Very cordial speeches were interchanged, and the foreign delegates warmly thanked Dr. de Rouse for having afforded them so pleasant a means of establishing intimate international relations.

Thursday morning was devoted to the discussion of the Therapeutic Application of Mineral Waters. The want of better comparisons between the various waters, and of general directions as to when they should be prescribed, was acknowledged by several speakers. Then the Congress debated on the question of including, as part of medical education, a course of lectures on the use of mineral waters and thermatology generally. Dr. Winternitz said that in the cliniques each person would have his own idea, and the discussion should be limited to the teaching of hydrology. He would propose that a special station should be created for the study, both practical and theoretical, of hydrology. The Belgian delegates complained that in their country nothing of the sort was taught, and this often placed the medical practitioners at serious disadvantage. Sometimes they only learnt from their patients what were the special advantages of various thermal and health resorts. A resolution was passed demanding the appointment of a commission to investigate the feasibility of altering the curriculum of medical studies and perhaps of creating chairs of climatology and hydrology in the various universities. The Congress also voted that in the meanwhile it was desirable that a few questions on these subjects should be introduced in the examination papers which medical students had to answer.

After visiting the Museum of Hygiene established by Dr. Proust at the Academy of Medicine, the Congress held its final sitting. The principal discussion related to the

next place of meeting. There were two invitations—one from Belgium and the other from Italy. The Belgian delegates pleaded with great energy and humour for their own country, while the Italians showed themselves equally anxious to secure the honour in favour of Rome. The Congress greatly enjoyed this tournament, and then proceeded to vote by ballot. Rome headed the poll by a large majority. The next, which will be the third, International Congress of Hydrology and Climatology will be held at Rome three years hence. After this decision, the Congress, having concluded its labours, adjourned amid cordial salutations.

After visiting the chemical and pharmaceutical section it was but natural to glance at exhibits of perfumery and articles for the toilet. The connexion between dress and health is better recognised every day, and I was anxious to see how far the French perfumer had imbibed these new doctrines. The result of the investigation was a complete disappointment. In the exhibits of hair-dressing it must be gratefully acknowledged that occasionally the principles of art have triumphed over the follies of fashion. On the other hand, not only are the laws of health neglected, but no care seems to be taken to preserve even the hair itself. Though little or nothing is known as to how the hair can be made to grow by artificial means, still the principles that govern its natural growth are obvious enough. Hair comes as clothing to protect the skin from the atmosphere or the sun, and will not grow so well, and perhaps not at all, on heads that are covered by unventilated hats. When women wore large chignons or piled up their hair in giant masses on the top of the head they had a tendency to become bald. These are self-evident facts, yet in the hair-dressing sections and in the millinery sections of the Exhibition I did not detect any attempt to act according to these principles. Originality, novelty, fashion, these were the only thoughts of the exhibitors. Sometimes they were actuated by a higher sense of art, but science has not yet influenced the exhibitors who dress the hair and make coverings for the head. In the perfumery section there are any number of hair washes and hair restorers, but nowhere anything new. No guarantee is given that lead, mercury, and other poisons do not constitute the active principle of these "restorers." The elegance of bottles in which they are exhibited, and the extravagant charge made for compounds that literally cost only a few farthings, are the chief attractions which ensnare an ignorant public. With mineral poisons the colour of the hair may be temporarily restored, but the constant use of these toxic substances is not likely to prove beneficial to the general health. Of more use are the various waters exhibited in the perfumery section used for dental purposes. Most prominent among these is the Eau Dentifrice du Docteur Pierre, which for fifty years has maintained its popularity. This exhibit is *hors concours;* a fact that is not surprising, considering that the firm has already received seven bronze, three silver, and seven gold medals. The advantage which Dr. Pierre claims for his dentifrice is absolute freedom from acids and aromatic and astringent qualities. Perhaps the exhibits of the raw materials used in perfumery found the most interesting feature in this section. Many of the largest firms from Grasse, notably Roure Bertrand et Fils, *hors concours* and member of the jury, and M. Cheris, sent specimens of essences, &c. The latter has an interesting series of photographs of his flower fields and his workers at Grasse and in Algeria. The hundreds of workmen and women employed in making scent, the mountains of rose leaves stored in huge barns, give an idea of the large share scents have in the pleasures of life. The oils and essences used by Piver, who has received the grand prix, are also close at hand; and some of the larger French perfumers have little drawing-rooms where there are fountains of scent, rich drapery, highly decorated shelves loaded with various bottles, jars, and art-painted satchels. When, however, I inquired from the graceful assistants who are there to extol the virtues of the perfumes if they had any antiseptic soap, I was greeted with an expressive look of horror by those who understood my question, for some of the assistants did not even know what I meant. How could I, in the midst of so many elegancies, refinements, and pleasures of life introduce a thought recalling the odours of the hospital, the agonies of disease and death? In self-defence I pointed to Rimmel's stall, where there is at least some coal-tar soap and some eau de Cologne, and some perfumed sawdust, that are recommended not so much as perfumes, but because they give off some oxygen, and therefore render the atmosphere purer. But then Rimmel is half an English firm; and Englishmen, according to the French tradition, are always committing some extraordinary and extravagant eccentricity. Under the cover of this excuse I beat a retreat from the perfumery section. The class abounds in luxury and in things of beauty, but there is little or no science. It is a triumph of coquetry over hygiene. The French have certainly not realised so well as the English that the arts of the toilet may be so combined with the care of cleanliness in such a manner as to ensure a better preservation of health; and this so intimately as to render it difficult to draw the line between the two. Here the French perfumers miss a good opportunity of raising their trade to a higher level. With thyme and other aromatics the antiseptic principle may be associated with a pleasant perfume, and thus two objects served at one and the same moment. This has been better understood by the State Perfume Distillery of the Principality of Monaco, which sends to the Exhibition some very agreeable antiseptic scents to be mixed with bath water.

Paris, Oct. 15th.

HOTELS.

(BY OUR ROVING CORRESPONDENT.)

(Concluded from page 761.)

I HAVE incidentally mentioned the effluvia of an hotel. These are chiefly due to humanity, cooking, tobacco, and drains, and in an average hotel the admixture of these four ingredients is, I should imagine, very tolerably equal. It is not necessary to dwell at length on the so-called "sanitary arrangements" of hotels, especially of continental hotels. These arrangements are, as a rule, execrable; the closets are often of the worst type, the supply of water is generally deficient, and the sanitary offices practically always ventilate into the corridors or shafts of the building. In designing an hotel provision ought to be made for placing closets and sinks in turrets approached by properly ventilated lobbies, so that the impregnation of the main building with sewer air may be a little less certain than it is at present. The pig if he has a chance goes outside his sty to obey the calls of nature, and it is only since man has given up following this very salutary example that sewer air has become his *bête noire* and the staple of his conversation. In big country hotels there ought to be (as there is in every country house) proper and ample accommodation provided in the gardens (approachable by a covered corridor if necessary). In this way the strain put upon the internal accommodation would be lessened, and the indecency experienced in a big Swiss kurhaus of a mixture of both sexes "waiting their turn" in the corridors would be avoided. Certainly a gentleman's "garden" ought to be provided as one of the sanitary accessories of an hotel, and it is probable that, properly managed, a similar arrangement would be welcomed by the ladies also. It is inconceivable to what extent this blind and dangerous practice of keeping "sanitary offices" within the walls of the main building is carried. Quite recently I visited one of the best known show places in Switzerland—the top of a mountain to which a railway brings hundreds of tourists daily during the season. Arrived at the summit, luncheon was necessary, and for luncheon a visit was paid to one out of several big hotels. This hotel, built in a place where the price of land can hardly be excessive, was of the usual type, four or five storeys high, with a central staircase and shaft running from the entrance hall to the roof. The entrance hall simply reeked of paraffin and ammonia *plus* hotel. The paraffin came from the lamps, the ammonia from the closets, which opened directly into the central hall. These closets communicated direct, without traps, with cesspools which received the slops and excrement of this huge establishment. To step from the pure air of the mountain top to the fearful atmosphere of this hotel was calculated to impress the mind of one who, having travelled to a spot where the air should have been absolutely pure, found that he was to run no small risk of being poisoned while he ate his lunch. At luncheon one could not but be impressed with the anæmic condition of several of the waitresses, and this was probably accounted for by the insanitary condition of the house.

In the present day, hotel advertisements generally lay

stress on the fact that there are "lifts," a monosyllable which lets in a flood of light on the general plan of the building, and indicates with absolute certainty that the area of the building is too small for the population it is designed to accommodate. Possibly some day we may have hotel advertisements couched in some such terms as these, "This establishment, standing in extensive pleasure-grounds, has been designed on the model of a luxurious country house. The main building is only two storeys high, and has been so designed that all the bedrooms may be easily reached without any undue effort. The sanitary offices are detached from the main building. The public rooms are also detached, but they are central, equally accessible from all parts of the house, and so arranged that the smell of the kitchen cannot possibly prove an annoyance." It is needless to say that every country hotel ought to stand in sufficient ground to enable it to be independent of any public sewer, and to deal with its own refuse in a manner which shall ensure the safety of the guests, render the soil increasingly prolific, and prove a source of profit to the landlord, rather than a perennial expense and nuisance.

Leaving the question of general design, I shall now consider some of the details of hotels. Thick parti-walls and double doors are absolutely essential to ensure the quiet of the guests. The bedrooms provided with these requisites should be of a convenient form. On the Continent the hotel bedroom is generally too long and too narrow. The window is often too small, and so heavily and ridiculously upholstered as to reduce its light-giving power to a minimum. This arrangement ensures that the end of the room farthest from the window is nearly always dark, and as the looking-glass is placed against one of the side walls, the difficulties of the toilet are very great. The bedrooms are often needlessly high, and not unfrequently there is a space of two feet or more between the ceiling and the top of the window. In "summer hotels" the bedrooms have no chimneys, so that it is impossible to get a current of air through them without opening the door, and the opening of the door generally means the admission of suffocative vapours from the corridor. Every hotel bedroom should have a covered balcony so arranged that in winter it can be enclosed by outside windows. A balcony is in summer a very pleasant addition to a room, but as an adjunct to a hotel bedroom it is necessary, in order to afford the occupant a place for shaking and brushing dusty clothing—a process constantly necessary for a traveller, but one which cannot be performed except in the open air. It is as well to state that the balcony is more common in continental than in English hotels. The thoroughly well-designed hotel bedroom, carefully "fitted" ather than furnished with an eye to the comfort and well-being of the occupant, is one of those things which may be found when upholsterers do not happen to be the chief shareholders in hotel companies. In one particular, hotels on the Continent are uniformly first-rate, and that is in the excellence of the beds. These are always comfortable and very superior to the beds which are found in English hotels. Of the rest of the furniture, the less said the better; but I cannot refrain from commenting on the perverted genius of the man who invented the chest of drawers and washstand in one, so designed that one's clean shirts are almost inevitably invaded by a flood of soapsuds. Your correspondent has been travelling for twenty-eight days, and he has paid 75c. per diem, or a total of 21 fr., for the tin vessel, and some two gallons of water, which the Englishman (especially when engaged in active exercise) has the arrogance to demand for the purpose of cleansing his skin. One need not grumble at the sum paid, but certainly one has a right to grumble at the difficulty often experienced in getting this customary sitz bath. Perhaps, when the Germans have written a few more thousand treatises on "Haut Cultur" these arch-pedants will begin to wash, and hotel proprietors will provide as a matter of course that which is now wrung from them with difficulty. The writer can only recall one hotel in which he has found a sitz bath supplied without asking, and that hotel was at Malta, and it is probable that the landlord had been drilled in this particular by officers of the English garrison.

A few words in conclusion as to hotel feeding. First one would ask whether the time has not arrived for the abolition of the huge Swiss *table-d'hôte* in its present form. The greatest good is got from a summer holiday by spending all day and every day in the open air, and it is extraordinary that people should submit to have their pleasures curtailed by the necessity of dining at a fixed hour, and that often when the hot summer day is at its best. When the noisy dinner-bell of the Swiss hotel kurhaus begins its intolerable clang, and the guests, dragooned by a pompous head waiter, begin to fall into line in the huge comfortless dining-room; and when the soup is served with a sort of military precision at the stroke of a bell, it is difficult to repress the thought that one is the inmate of some charitable institution, and this thought will be intensified if the soup should prove to be a pultaceous gruel, and if, being Saturday night, the English chaplain is making a tour of the room with a view of getting recruits for to-morrow's choir. "It will be something like this in the workhouse, I suppose," is the thought that rises to the mind, but accompanied by the blessed reflection that in "the house" we shall not have to pay five francs a head. The monster *table-d'hôte* is objectionable also because of its tediousness, the intolerable heat and noise, and the risk one runs of being placed in close proximity to people who, from one cause or another, are not congenial. It would be better, I think, from every point of view, to adopt the English plan, and serve a house dinner at a fixed price between certain hours. This dinner, if served at small tables, would allow the guest some degree of liberty as to the time of his meal and the selection of dining companions, and ought to allow of more variety in the *menu* than is possible at the ordinary *table-d'hôte*. Of hotel feeding I have written in previous years, and I am rather afraid that free trade makes a man an epicure. In London we are fed upon selected food drawn from every country in the world, and as a consequence we have a variety of fish, flesh, fowl, farinas, fruit, and vegetables which is to be met with nowhere else. In the days of the Tudors we had the reputation of being the best fed nation in Europe, and there can be little doubt that we deserve that reputation still. This is a matter for congratulation; but, nevertheless, we must admit the drawback that the Englishman on his travels will have to submit to the minor hardship of paying very dear for food which by no means unfrequently seems to him to be very second rate.

SOCIETY OF APOTHECARIES OF LONDON.

THE MEDICAL ACT OF 1886 AND THE TITLE OF L.S.A.

Mr. J. R. UPTON, the clerk and solicitor of the Society of Apothecaries, has forwarded to us the following statement, with a request that it might appear in our columns.

A misunderstanding appears to prevail on the part of persons passing the Qualifying Examination held by the Society of Apothecaries of London, that they are entitled to ask the Medical Council to register them under a title which does not exist—namely, that of Licentiate in Medicine, Surgery, and Midwifery. The Society desires, therefore, to publish an authoritative statement which it is hoped may finally put an end to the misunderstanding, and so avoid further trouble to the Medical Council, the Society, and the Licentiates themselves. If the Licentiates would read the Medical Acts they could never fall into the error which it is the object of this statement to correct. In the first place, no Medical Act has ever sought to define what was the meaning of the titles conferred by the various licensing bodies. The Medical Act of 1858 merely enacted that a person must be registered under one of the titles scheduled to that Act, and that he must only practise what that title allowed of his doing. But the Act of 1858 did not, for example, define what rights the title of L.R.C.P., M.R.C.S., and L.S.A. respectively conferred. That could only be ascertained by reference to the Charters or Acts under which the various licensing bodies existed. Only those who were familiar with those Charters or Acts could say whether a Member of the College of Physicians could legally practise both medicine and surgery, or whether a Licentiate of the Society of Apothecaries could only practise medicine. Without this knowledge no one, by mere intuition, could say whether an L.R.C.P. could practise surgery, or an L.S.A. could not; neither title using words to imply whether the power to practise surgery was conferred or not, and the title L.S.A. on the face of it not even implying the power of practising medicine. The Act of 1858 unintentionally originated or perpetuated an abuse in the fact that a qualified or registered medical man frequently ignored the limitation imposed on him by his licensing body and by the Register, and practised one or other of the subjects for which he had no registrable qualification. The Act of 1886 (so far as its provisions in the above respects are under discussion) was brought in to put an end to this state of things. Like its predecessor of 1858, it did not interfere with or alter the titles which the various bodies had power to confer, but it effectually stopped any medical title being obtained except on conditions which conclusively established that the holder had proved his proficiency in medicine, surgery, and midwifery. To illustrate this, it may be stated that since the passing of the Act of 1886 it is not of necessity, but by choice, that a person passing the examination of the Conjoint Board of the Royal Colleges has himself registered under the diplomas of both Colleges. Provided he has passed the Conjoint Examination, he may, if he please, get on the Register either as L.R.C.P. or M.R.C.S.

Although the whole point under discussion might be said to be one of interest only to the medical profession (the public never, or practically never, consulting the Medical Register either before or since the Medical Act of 1886, or inquiring what titles a medical man possesses, or what functions they empower him to discharge), it is important to observe that it is only because medical men before 1886 knew that L.S.A. could only practise medicine that they have imported into the title words which are not to be found in it. It cannot be expected that in the space of three years everyone should know that that title, if obtained after 1886, implies a great deal more than it did formerly, but in time this will have become as thoroughly known as gradually after 1815 it became known that L.S.A. meant a Licentiate in Medicine. The reason why it was gradually known after 1815 that the title L.S.A. entitled the holder to practise medicine was because it was so expressed in the diploma then granted by the Society, and that the contents of such diploma became generally known. But in the same manner, now that the Society's diploma expresses on the face of it that the holder can legally practise medicine, surgery, and midwifery, this fact will in time be equally well known, and, indeed, far more rapidly and completely, because, if the present diploma did not show on the face of it that the conditions of the Act of 1886 had been fulfilled, it could not be put on the Register at all, and this must soon become a matter of general notoriety.

Enough has been said to fully justify the Society remaining passive, even if it had not attempted to get the title of its Licentiates altered when the Act of 1886 was being passed. But it is a matter known to all who had to do with that Act before it passed (and the Society was allowed as much indulgence as any other medical body in approaching the Government during the progress of the Bill) that the Vice-President of the Privy Council absolutely, and no doubt wisely, declined to allow the principle of the Act of 1858, as above explained, to be interfered with. The Society, nevertheless, during the present year submitted through its representative, Mr. Brudenell Carter, to the Medical Council the draft of a Bill to be laid before Parliament for (among other things) altering the title of its Licentiates obtained after 1886. The Medical Council declined to countenance such a proposal, and the Society therefore abandoned it; and unless any general scheme should be formulated, either by Government or by the Medical Council, for dealing with the question of medical titles, the Society will not of its own accord take any further step in this direction. Public bodies who have appointments to confer are fully aware of the qualifications conferred by the title of L.S.A. granted since the Act of 1886, the Society having never lost an opportunity of satisfying them on the subject.

POSTSCRIPT.—Since the above statement was forwarded for publication the Society finds that a memorial is about to be presented to the Medical Council by many gentlemen who have obtained its licence under the provisions of the Act of 1886, asking the Council to deal with the question under discussion. The Society, it is needless to say, has no wish to discourage such a memorial, and would point out that in the last paragraph but one of the statement it only explains that after what has already taken place it could not, as one of the representative bodies on the Council, again initiate such a movement. The decision of the Medical Council at its last session rested on a basis which, however unacceptable to those who differ from it, is intelligible—namely, that while, for example, the titles of the diplomas of the Colleges of Physicians and Surgeons identify the holder with the Licensing Body which granted them, the new title suggested for the Licentiates of the Society of Apothecaries would be entirely disconnected, or be liable to be disconnected from the Society, and might therefore even imply that it was a title granted by some other body.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Condition of the Buckingham Rural District, by Dr. GRESSWELL.—Dr. Gresswell, who has for some time been giving occasional services to the Local Government Board, enters into a detailed description of the sanitary state of this rural district, which contains a somewhat stationary population of about 9800 people, chiefly engaged on the land, and living in scattered hamlets and villages. The dwelling accommodation has received some local attention; but there still remains much to do in the way of rebuilding and repairing; and there is much lack of that which is proper from both a structural and a sanitary point of view in the matter of the disposal of excreta and refuse. Drainage arrangements are also extremely defective, varying as they commonly do from the mere slop-hole or ditch to drains of bad construction, which admit of being blocked or of otherwise causing nuisance. Such sewers as there are appear to be mere highway drains, but they seem at times to receive privy contents, slaughter-house drainage &c. Water comes from a number of sources, including wells which are imperfectly protected from surface soakage, and are sunk in a soil liable to contamination; and a long account is given of the various available sources of supply, which shows the need that exists for improvement and watchfulness in this respect. Typhoid fever, as might have been expected, is of frequent occurrence, and diphtheria is also far too common. The rate of mortality from respiratory diseases is also excessive, this result being in part, if not largely, due to the damp and ill-ventilated condition of the dwellings. The occurrences of infectious diseases have often been in groups, and have been due to such conditions as local pollutions of water; and Dr. Gresswell, in reviewing this part of his subject, says that the circumstances discovered and narrated afford a strong indication that the sanitary authority have not properly exercised the functions imposed upon them by the Legislature. They have hesitated to use the powers they possess; they have made no bye-laws; they have no means for the proper isolation of infectious diseases; and the advice of their medical officer of health goes unheeded. This officer also receives no encouragement to attend the meetings of the authority, at which they should, properly speaking, take counsel of him. Perhaps the strongest condemnation of a system which imposes on a body of people mainly elected for Poor-law work, that of caring for the health of the community, is contained in the statement that at their monthly meetings they are said to give thirty minutes—or six hours in the course of the year—to the sanitary aspects of their district, and that even this amount of time has recently been sensibly curtailed in order to give attention to the subject of allotments. We fear the Buckingham guardians are not the only ones who thus postpone their sanitary work until the end of a Poor-law meeting. It often happens that but few remain at the Board, since it is market day; and thus when important health considerations come forward they get postponed again and again until they are practically forgotten.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Gateshead Urban District.—Dr. W. Robinson takes occasion, in his annual report for 1888, to advert to the evils of overcrowding in Gateshead, and to point out the methods by which this tends to increase mortality. At the same time he is able to prove by comparative statistics of the last two quinquennial periods that 1884–88 shows a reduction of death-rate from all causes, from zymotic diseases, and as to the proportion of infant deaths per 1000 to registered births, and this although the number of persons per acre had increased from 21·3 in 1881 to 26·0 in 1888. Last year's general death-rate was 17·0 per 1000 in an estimated population of 81,303. The isolation hospital is stated to have again proved of considerable value to the borough, but the number of admissions during the year was only twenty-two in all. The water-supply of Wrekenton, Blue Quarries, and Sheriff Hill is still of a very unsatisfactory character, and the Corporation are met by the difficulty that these places are situated at an altitude above highwater mark, at which the water company is exempt from any liability to provide a supply. Happily the old large open middens are disappearing, although the process is a slow one. Indeed, on the whole steady improvement seems to be going on in Gateshead, which is described as essentially a "workman's town"; and regular sanitary work is systematically in progress.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5642 births and 3201 deaths were registered during the week ending Oct. 12th. The annual rate of mortality in these towns, which had been 17·9 and 17·6 in the preceding two weeks, further declined last week to 17·5. During last quarter the death-rate in these towns averaged 18·6 per 1000, and was 1·6 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 9·3 in Cardiff, 12·3 in Bristol, 13·8 in Derby, 14·3 in Nottingham, and 14·9 in Leicester. The rates in the other towns ranged upwards to 25·6 in Newcastle-upon-Tyne, 27·6 in Sunderland, 28·0 in Preston, and 32·7 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 529 and 403 in the preceding two weeks, further declined last week to 352; they included 116 from diarrhœa, 65 from scarlet fever, 55 from diphtheria, 43 from "fever" (principally enteric), 41 from whooping-cough, 32 from measles, and not one from small-pox. These zymotic diseases caused no death last week in Huddersfield, and the highest death-rates in Preston, Sunderland, and Plymouth. The greatest mortality from

diarrhœa occurred in Preston, Newcastle-upon-Tyne, and Wolverhampton; from scarlet fever in Salford, Leeds, and Plymouth; from "fever" in Plymouth; from whooping-cough in Oldham; and from measles in Preston and Sunderland. The deaths from diphtheria included 35 in London, 4 in Manchester, 3 in Salford, and 3 in Liverpool. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1342, against numbers increasing in the preceding fifteen weeks from 559 to 1299; 177 cases were admitted to these hospitals during the week, against 166 and 149 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 142, 189, and 225 in the preceding three weeks, further rose last week to 264, but were 28 below the corrected average. The causes of 63, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Leeds, Nottingham, Leicester, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Hull, Halifax, Liverpool, Preston, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18 8 and 18·6 per 1000 in the preceding two weeks, further declined to 18·3 in the week ending Oct. 12th; this rate exceeded, however, by 0·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 10 6 and 13·4 in Greenock and Dundee to 21·6 in Glasgow and 23·3 in Paisley. The 469 deaths in the eight towns showed a further decline of 8 from the number in the previous week, and included 19 which were referred to diarrhœa, 14 to whooping-cough, 13 to diphtheria, 7 to measles, 6 to scarlet fever, 5 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 74 and 69 in the preceding two weeks. These 64 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·6 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had declined in the preceding four weeks from 38 to 16, rose again last week to 19, of which 8 occurred in Glasgow, 4 in Dundee, and 3 in Edinburgh. The 14 deaths from whooping-cough were within one of the number in the previous week, and included 9 in Glasgow and 3 in Paisley. The 13 deaths referred to diphtheria corresponded with the number in the previous week; 6 were returned in Glasgow, 6 in Edinburgh, and 1 in Leith. Of the 7 deaths from measles, 3 occurred in Glasgow, and 2 in Aberdeen. The 6 fatal cases of scarlet fever included 2 in Glasgow and 2 in Perth; and 4 of the 5 deaths from "fever" occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 66, 89, and 99 in the preceding three weeks, declined again last week to 87, and were 21 below the number in the corresponding week of last year. The causes of 41, or nearly 9 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·5 and 26·2 per 1000 in the preceding two weeks, further declined to 23·2 in the week ending Oct. 12th. During the last quarter the death-rate in the city averaged 24·0 per 1000, the mean rate during the same period being 15·8 in London and 16·0 in Edinburgh. The 157 deaths in Dublin last week showed a further decline of 20 from the high numbers returned in the preceding two weeks; they included 14 which were referred to diarrhœa, 7 to "fever" (typhus, enteric, or ill defined), 2 measles, and not one either to small-pox, scarlet fever, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 31, 30, and 23 in the preceding two weeks, were again 23 last week; they were equal to an annual rate of 3·4 per 1000, the rate from the same diseases being 1·5 in London and 2·0 in Edinburgh. The deaths attributed to diarrhœa, which had been 23 and 12 in the previous two weeks, rose again last week to 14; the 7 deaths from "fever" corresponded with the number in the previous week. The deaths of infants showed a marked decline from recent weekly numbers, while those of elderly persons corresponded with the number in the previous week. Two inquest cases and 3 deaths from violence were registered; and 48, or more than a quarter, of the deaths occurred in public institutions. The causes of 18, or more than 11 per cent., of the deaths in the city were not certified.

THE HIGH DEATH-RATE IN RUSSIA.

Dr. Leinenberg of Odessa publishes in the *Internationale Klinische Rundschau* a lengthy article on the mortality in Russia, which is full of interest for the statistician. He says that in the number of births alone Russia ranks first of all European States, as they annually amount to no less than 48 8 per 1000 of the population. The latter would consequently grow with abnormal rapidity, if an enormous mortality did not make this impossible. This mortality is, according to Janson, 37·3 per 1000, while the Statistical Central Committee reports it at 36·8 per 1000. As to the causes of such high figures, Dr. Leinenberg points out that they depend largely on high infantile mortality. He states that 104·8 boys are born to every 100 girls, and that amongst the Jews the proportion of boys born rises to 128·9 for each 100 girls. The mortality of boys, as of the male sex in general, is correspondingly greater than that of the female sex, in the proportion of 36·7 to 35·2. Of 1000 newly born children 263·4 die before they are a year old. This mortality in the first year of infancy is in the province of Novgorod 281 per 1000, and in the Rusk district of the province of Moscow it reaches the figure of 550·8 per 1000. Even this enormous number has been surpassed by the town of Irbit, which shows a mortality during the first year of life of 560·2 per 1000. The provinces of Ekaterinoslaw and Wilno are distinguished by the lowest infantile mortality, the figures mentioned in the report of the Statistical Central Committee being 139·7 per 1000 for Ekaterinoslaw and 118·9 per 1000 for Wilno. Comparing the infantile with the general mortality in Russia, the author points to the following two important statistical results. Children up to the fifth year of age form more than one-half of the deaths from all causes. Infantile mortality shows a tendency to increase every year. This great infantile mortality in Russia must be largely attributed to the want of proper diet and of sufficient care, especially amongst the agricultural population. In summer, which is the time when nearly all the children die in the country, the parents are in the fields, leaving their infants at home with no supervision and without sufficient food. This sometimes leads to strange and sad accidents, as in a case mentioned by Giljarowsky, in which pigs devoured the buttocks of a child which had been left alone at home for a considerable period. Griasnoff attended a child, which under similar circumstances had been attacked by goats, and had lost every finger on both hands. Dr. Leinenberg also goes on to speak of the health of those who have passed the crisis of the fifth year. Of 1,568,315 boys born in the year 1858, only 750,622 were alive in 1879, and when out of this number 272,974 were examined for the purpose of military conscription, 58,824 men—i.e., 21·5 per cent.—were found to be suffering from various incurable or chronic diseases, and had consequently to be returned as unfit for military service. So that of all boys born in 1858, 47·8 per cent. reached their twenty-first year, but only 37·6 per cent. preserved good health.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-General Jeffery Allen Marston, M.D., C.B., F.R.C.S. England, is granted retired pay (dated Oct. 16th, 1889); Surgeon-Major Charles Healy is granted retired pay (dated Oct. 16th, 1889).

ADMIRALTY.—Royal Naval Artillery Volunteers (Liverpool Brigade): Surgeon Alfred Charles Edward Harris, F.R.C.S., to be Staff Surgeon (dated Oct. 9th, 1889); Surgeon Henry Briggs, M.B., F.R.C.S., to be Honorary Staff Surgeon (dated Oct. 9th, 1889); and George Herbert Pollard, M.B., C.M., to be Surgeon (dated Oct. 11th, 1889).

VOLUNTEER CORPS.—*Rifle:* The Queen's Rifle Volunteer

Brigade, the Royal Scots (Lothian Regiment): William Henry Miller, M.D., to be Acting Surgeon (dated Oct. 12th, 1889); 2nd Volunteer Battalion, the Royal Warwickshire Regiment: Acting Surgeon W. J. Pickup, M.B., to be Surgeon (dated Oct. 12th, 1889).

Correspondence.

"Audi alteram partem."

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—A very few words from me will suffice to close, I trust, the controversy with my friend Mr. Wheelhouse, and will at the same time make it apparent that (as I assumed in my Leeds address) "we do not differ greatly in essentials." Certainly I could not possibly claim from anyone, thinking as he does, a more handsome concession than this: "I would rather go on as we are, greatly as I consider that our plan might be improved, than that we should go back to the old system of a five years' apprenticeship to one man or to one institution. I hold, and I have ever taught, that to go back to that system would be to waste, hopelessly and absolutely, three years of the very best part of every educational life." On the other hand, I am fully disposed, from my point of view, to concede that "the present system" is very far from being perfect; and if the Medical Council can devise a plan, consistent in any degree with what I have called "thoroughness," for grafting upon it a larger amount of such practical experience as can be obtained only, or best, in the homes of the sick, it will be a decided gain. My object was, and is, to maintain that "thoroughness" in the *method* of instruction is of more importance than extent in the *range*, as regards the number of cases seen, because clinical instruction, so-called, which is not thorough is even worse than useless, in respect that it inevitably begets, and perpetuates, bad habits both of diagnosis and of treatment. Hence I argued that it was much better to learn, clinically, a few things about disease well, than a great many things badly; and that in any case the much more thorough investigation which is at least possible in the clinique of a well-managed hospital forms a better foundation for practice than almost any amount of so-called experience attained under less favourable conditions. But I am very far from adopting the paradox attributed to me by Mr. Wheelhouse, that "half a dozen cases of pneumonia, or of Bright's, or any other diseases, studied ever so deeply, will stand instead of the practical ability to relieve a distended bladder, or to reduce a dislocated joint." On the contrary, I hold that these very surgical procedures eminently and peculiarly demand thoroughness in teaching certainly not less than the leading facts of medical experience; and the only question about them is, or ought to be, how in the case of the general practitioners of the future this thoroughness can best be secured. I do not think that in these particular instances it can best be secured, or indeed be secured at all, "at the commencement of professional study." All this, however, is matter for the General Medical Council, and I am very well content to leave it to them to arrange when, how, and by whom this kind of instruction is to be conveyed. I will only give, in conclusion, a small contribution out of my own personal experience, just in order to show that in this matter I am not speaking at random nor yet uttering "mere declamation." Although I never, even in the student days of long ago, was conscious of aiming specially at surgical practice, I had in the third year of medical study personally extracted more teeth and performed more venesections than I have ever even thought of doing since; and in the latter case far more numerically than all my pupils together have had a chance of doing for the last thirty years. But I have often since then been led to reflect, who was the better for that? Was the mechanical skill supposed to be attained in this rough-and-ready practice an adequate compensation for its roughness? During the same third year, or rather summer and autumn, I attended some scores, or, I believe, hundreds of cases in their own homes in almost every close and wynd in my native Edinburgh, from Holyrood to the West Port, and certainly managed to see (in a kind of way) almost all the common diseases (epidemic and other) under the nominal "covering" of a chief, but really almost uncontrolled. I am far from undervaluing this experience; but I have no doubt now that I made many mistakes, and might have adopted very "automatic" ways of dealing with disease but for the invaluable and long course of hospital experience which followed, and is not even yet completed. And for the great majority, who cannot in the course of events be expected to undergo a similar training *after* they go into practice, I hold that the hospital training of the student should, above all things, be *thorough*—"Non multa sed multum." But in nearly one hundred separate and carefully managed clinical conferences which go to make up our winter course, and half that number in summer, we do, I trust, in the Western Infirmary here get over a good deal more ground, even in respect of common diseases, than Mr. Wheelhouse, with his allusion to "half a dozen cases" &c., accredits us with doing. At all events, we do our best. It is for the Medical Council to say what more can be done, or attempted, in future; and so it be consistent with "thoroughness" of method, it will not only have no opposition from me, but the contrary.

I am, Sirs, yours truly,

Glasgow, Oct. 14th, 1889. W. T. GAIRDNER.

To the Editors of THE LANCET.

SIRS,—It is a hopeful sign of the times when one finds men like Mr. Wheelhouse and Dr. Clifford Allbutt discussing the vexed question of medical apprenticeship; but the curious part of it is that the question should require discussing at all. It is admitted on all hands that the hospital curriculum does not teach the embryo doctor the routine of private practice, or what our old friend *Mr. Punch* calls a good bedside manner, and, though it teaches him to talk learnedly about such diseases as locomotor ataxy or perityphlitis, which he may see once or twice in five years, it does not teach him to diagnose a case of measles or ordinary sore-throat; indeed, to him sore-throat is always "diphtheritic exudation." Why, in the name of common sense, should a lad of sixteen or seventeen, in our profession, not begin as he does in the law and every other profession and trade by mastering its details and all the thousand little things that go to make success in after-life. Years ago medical men were paid to teach a youth these little but useful minutiæ; now medical men have to teach, or *try to do so*, young men fresh from hospital who think they know more than those who have been successful in private practice for twenty years, and at the same time to pay them £80 or £100 a year for the honour and privilege of doing so.

Some time ago I was talking to the dean of a medical school, and this is the impression he left upon me: That those connected with medical schools make the laws relating to medical education; that if a lad was with a medical man, say two years, he would only need three in hospital instead of four; that this would mean a loss of £40 per student to the medical school; that therefore it is simply that the medical school wants the money that otherwise would reach the medical practitioner with whom the student was apprenticed. If this is so, here is the key of the position. I trust so selfish a policy cannot have foundation in fact.

It is not pleasant to engage an assistant who may be an L.R.C.P. Lond. and all the rest of it, and to find that old women have to correct him; that he rides a horse like a tailor, cannot dispense or fill up a vaccination book, advises paupers to have jellies made, and not to take 1*s.* 6*d.* port-wine, exposes females as they do in lock wards, drives your horse and trap into the ditch, and smashes it as it ought to be smashed, mistakes measles for syphilis and flea-bites for scarlatina, treats itch for a month with liquor arsenicalis; in fact, makes blunders that ruin his reputation and injure his employer, blunders he could not make if he were a pupil for even six months.

To return to the old system of five years' apprenticeship would be absurd; two years is quite enough (I did five, and I never regret it). And if a youth were made to learn practical pharmacy and dispensing during this time, and to pass an examination in it, instead of having to learn such trash as mechanics, he would be none the worse. More than this, two years' probation as an apprentice would show whether a lad was fitted for the profession; and if he were not, it would not be too late, as it is now, to begin one more congenial to his taste. He enters hospital when he ought almost to be at school, and is pledged to go on with

a profession in which he may be a failure, and thrown, his own master, on a world that he knows nothing about before his character is sufficiently developed to withstand its temptation; in fact, he has finished his curriculum very often while he is still *an infant* in the eyes of the law. The youth who can, after his curriculum is over, hang about hospital "until something turns up" is the exception. Most young men must necessarily go into provincial practice or as assistants, and if they only knew how much better salaries they can command if they know the ins and outs of private practice, if they have mastered its details—which they are too self-opinionated or too proud to do after they are qualified—they would themselves find the remedy; as it is, it strikes one they are in the hands of those who, like Shylock, want the extreme pound of flesh.

I am glad indeed to find Mr. Wheelhouse taking up the cause, and I trust he will go on with it until he has succeeded in improving the present admittedly imperfect state of medical education.

I am, Sirs, yours faithfully,

Sherborne, Oct. 12th, 1889. NATHANIEL EDWARD DAVIES.

To the Editors of THE LANCET.

SIRS,—Having read Dr. Gairdner's address at Leeds, as also Mr. Wheelhouse's letter in your last issue, I shall be glad if you will allow me as a general practitioner to say a few words. Dr. Gairdner speaks as a clinical teacher, and his remarks apply to strict clinical work rather than to general practice. Mr. Wheelhouse treats the subject from a broader point of view, and in maintaining the advantages of the early apprenticeship he has my entire sympathy. I think that every youth should be apprenticed for at least two years, during which time he will have the advantage of learning the routine of surgery work, and also be able to read up the elementary part of subjects he has to face on commencing his studies. I allude to the bones, chemistry, and materia medica. He will thus enter on his curriculum with an advantage not possessed by him who commences otherwise. He is just at the age to receive impressions which will last a lifetime, and erroneous ones will soon be knocked out of him when he comes into the hands of such men as Professor Gairdner at the bedside. As an apprentice he will acquire a knowledge of details which he will never forget, and which are unknown to those who merely attend at a dispensary. These details are too numerous to mention, but consist in a familiarity with drugs, dispensing, and an aptitude of examining and addressing a patient in a natural easy way. To gain the confidence of a patient is half the battle towards success, and this is not to be attained by strict clinical teaching. Again, I am quite sure that he who has served an apprenticeship is much more likely to benefit by clinical teaching, and in a better position to grasp the knotty points of a complicated clinical case than he who joins the profession without a preliminary training. As regards entering on a kind of apprenticeship after having attended lectures, such a procedure is putting the cart before the horse. I think Professor Gairdner and Mr. Wheelhouse are both correct in their ideas, and firmly believe that the youth who follows Mr. Wheelhouse's advice in the early, and Professor Gairdner's advice in the latter part of his studies, will make the best practitioner.—I am, Sirs, yours faithfully,

Oct. 15th, 1889. CYCLOPS.

To the Editors of THE LANCET.

SIRS,—Mr. Wheelhouse's contention is difficult to oppose if his premisses are admitted. May I point out the premiss that I think far too erroneous to be allowed to pass? Mr. Wheelhouse speaks of "*simple information*;" he says "*rudimentary knowledge* should be sought in the earlier years of studentship" (the italics are mine). The "simple information" he specifies is acquaintance with "the more common forms of ordinary illness," ability "to know measles from scarlet fever," &c. There can be no doubt that "rudimentary knowledge," "simple information," should be first learnt. But "the most common forms of ordinary illness" are among the most difficult problems of our art. What the student calls a "good case" of pleuritic effusion, ulcer of the stomach, cerebral tumour, compound fracture, &c., although of greater gravity, is yet infinitely more simple than a case of chronic rheumatism, recurrent headache, doubtful incipient phthisis, and the like. To track out the origin correctly, measure the importance of comparatively slight ailments, and treat them with the greatest amount of success, test the highest powers of the physician, although the prescribing chemist and the pupil who has been three months in a surgery can alike put up a bottle of medicine which will give temporary satisfaction. Simple things should certainly be first learnt; but it is hospital work that is simple, not private practice. I think every student after being qualified, not before, should pass a year or two as assistant to a general practitioner.

I am, Sirs, faithfully yours,

Oct. 14th, 1889. F.R.C.P.

THE ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—Mr. Simeon Snell's remarks in your last issue concerning my article on foreign bodies in the eye are calculated very much to mislead. There is a kind of indirect inference that the use of the electro-magnet is not known here, or, at all events, is not duly appreciated, and that we still resort to what Mr. Snell disparagingly alludes to as "the crude methods of years gone by." I think that those who will read my paper carefully will not be thus deceived, and those who have followed my practice will admit that we are quite as alive to what is passing in the ophthalmic world here as they are in Sheffield. I used a magnet for the removal of particles of steel from the eye before Mr. Snell had probably entered the profession, and was the possessor of one of the first electro-magnets used in this country, some time before the somewhat inconvenient instrument which bears Mr. Snell's name was introduced to the notice of the profession. If I did not emphasise the use of the electro-magnet for the removal of pieces of steel from the iris, it was not because I do not believe it to be sometimes of value under these circumstances, but because my remarks were applying in a great measure to particles which are not influenced by magnetic attraction. The reasons why I did not use the magnetic probe in the special case mentioned in my lecture were because in the first instance the instrument was not within my reach, and in the second the piece was so firmly embedded in the iris, and this structure was itself so inflamed and adherent, that iridectomy, I felt, would probably be desirable under any circumstances. The case, indeed, was brought forward chiefly with a view to illustrate the great advisability of using anæsthesia in all these cases, and the danger that is incurred by neglecting this precaution. Had the patient been brought fully under the influence of chloroform, I have no doubt the fragment would have been readily enough removed with the forceps. Indeed, my own experience and that of others prove that it is precisely in these cases (where a piece of steel has become fixed in the iris, and that structure has become inflamed and adherent) that the magnetic probe gives the most unsatisfactory results, and by its failure frequently necessitates our having recourse to the "crude methods" to which Mr. Snell objects. Thus, in a paper[1] in the "Archives of Ophthalmology for 1888," giving Professor Horner's experience in the use of the electro-magnet, we find the following:—"In all six cases of metallic foreign bodies firmly lodged in the iris the magnet was indicated in only three of these, and in two only did it yield any result." And further on: "This agrees pretty well with Hirschberg's results, where, in the most impartial manner, only one case of extraction by the magnet is reported against five others in which extraction had been accomplished by means of the forceps."

Mr. Snell concludes his letter by reminding us that *his* observations on the magnetic needle were published some years ago. I do not doubt this, though I have never had the pleasure of reading them, and in any case I fail to see why others should be deterred from pursuing investigations in the same field of inquiry. Although it is now some ten or twelve years since I first made experiments upon this subject, and have used the magnetic needle occasionally ever since then, I fear neither Mr. Snell nor myself can claim the originality of the idea, which dates from a far more remote

[1] Dr. Neese: Contribution to the Magnet Operation.

period. After an experience in injuries to the eye which is probably not far short of your correspondent's, I may say, generally speaking, that I consider the electro-magnet a very much overrated instrument; for if it has saved some eyes in the hands of skilful operators, its extensive diffusion has led to not a few being sacrificed to promiscuous and haphazard probings.

I am, Sirs, yours faithfully,

C. S. JEAFFRESON,
Senior Surgeon to the Northumberland, Durham, and
Oct. 19th, 1889. Newcastle Infirmary for Diseases of the Eye.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—In your leading article of Oct. 12th regarding the foundation of this College, you say: "When the appointments to the new College had to be made there were clearly two ways of making them open to the governors: one by advertisement and public candidature and the selection of the fittest; the other by a committee of selection, whose choice should be submitted for ratification to the governors. The latter was chosen." That is correct so far. The latter method was *chosen* certainly, but it was not carried out; for, before any opportunity was given to the governors of ratifying the selections made, an official list of professors and lecturers was published in the *Glasgow Herald*. It is within the mark to say that to three-fourths of the governors this came as a complete surprise. One governor, accustomed to weigh his words, said frankly to me that he felt he had been made a fool of; while another layman, who has long occupied in the West of Scotland a first place in the administration of medical charities, told me that he had been compelled by this procedure to resign from the board—a resignation which, in the interests of St. Mungo's College, I am glad to understand has been withdrawn.

I am, Sirs, yours faithfully,

Glasgow, Oct. 14th, 1889. J. WALLACE ANDERSON.

"CURIOUS INQUEST REPORT."

To the Editors of THE LANCET.

SIRS,—In fairness to myself regarding the report in THE LANCET of Oct. 5th in reference to an inquest on the body of a child found in the Grand Junction Canal, I ought to state that the report in the *Kensington News* appears to have been somewhat inaccurate. The facts are these. The body when found was well-nourished and healthy-looking, and from all appearances seemed not to have been very long in the water, so much so that I performed artificial respiration for some considerable time. There were no marks of violence on the body, except that the right humerus was fractured. The string around the neck was very loose, leaving no mark.

At the post-mortem examination I was assisted by my friend Dr. Skinner, and we found that the signs of drowning were absolutely negative, as given by Guy and Ferrier's and Husband's books. There were no injuries to the head, but the brain was quite disorganised. On examining the fracture of the humerus, there was not the least ecchymosis around the injury. We concluded that there was no evidence of drowning, and considered that death had taken place before the body was placed in the water.

I am, Sirs, yours truly,

Harlesden, N.W., Oct. 11th, 1889. HENRY A. BABER.

NECROSIS OF THE ALVEOLAR PROCESSES.

To the Editors of THE LANCET.

SIRS,—In recording two interesting cases of necrosis of the alveolar processes following measles, in your issue of Oct. 5th, Mr. Lucas states that he has not known of any case of typhoid fever resulting in exfoliation of bone in this situation. It may be of interest to mention a case which occurred in my practice some few years ago, in which a boy, aged seven, recovering from typhoid fever, became the subject of acute necrosis of the alveolar process of the left superior maxilla. The disease was somewhat extensive, but the necrosed portion came away quite easily after a time, as a tooth was firmly fixed in it, and by seizing the latter with a pair of tooth-forceps the whole separated.

I am, Sirs, yours faithfully,

Portsmouth, Oct. 7th, 1889. J. G. BLACKMAN.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Presentation and Farewell Dinner to Mr. Reginald Harrison.

THE farewell dinner to Mr. Reginald Harrison took place at the Adelphi Hotel on the 5th inst., amid surroundings of which any surgeon, metropolitan or provincial, might have been justly proud. The company numbered nearly 150, and comprised many friends from a distance. Among the lay guests were the Very Rev. Dr. Lefroy, Dean of Norwich; Mr. H. B. Gilmour, chairman of the Royal Infirmary; Professor Rendall, principal of University College; and Captain Nott-Bower, head constable of Liverpool. Mr. Mitchell Banks, senior surgeon to the Royal Infirmary, presided in a most felicitous manner, the toasts were few and well selected, and the musical arrangements were excellent, the company furnishing an amount of amateur talent sufficient to satisfy any audience however critical. In proposing the toast of "Our Guest," Mr. Banks gave a very interesting sketch of Mr. Harrison's career, which, with some additions, may be advantageously reproduced. It affords a very excellent example to all members of the profession of what may be done by energy and perseverance. He first studied at the Stafford General Hospital, where Mr. Moreton, of Tarvin, was then house surgeon, to whom he expressed himself as being much indebted. Subsequently he studied at St. Bartholomew's Hospital Medical College, and soon after obtaining his diplomas he came to Liverpool in 1859 as house surgeon to the Northern Hospital, not having, as he observed, the acquaintance of one professional friend in this city or neighbourhood. In 1860 he became resident surgeon to the Royal Infirmary, where he remained three years, and after a short absence he commenced practice here, becoming demonstrator of anatomy and registrar at the School of Medicine, and later on surgeon to the Northern Hospital. The School of Medicine was at that time in so languishing a state that it was seriously contemplated to close it altogether, and its resuscitation was work for which Mr. Harrison was thoroughly fitted. In 1868 he became assistant surgeon to the Royal Infirmary, full surgeon in 1874, and senior surgeon in January last on the retirement of Mr. Bickersteth. In 1880 he was elected president of the Liverpool Medical Institution, and in 1883 he delivered the address in Surgery at the annual meeting in Liverpool of the British Medical Association. Mr. Banks concluded an admirable speech by uncovering a handsome silver bowl and two goblets, which, with an album containing the names of all the subscribers, constitute the testimonial. These he formally presented to Mr. Harrison. The latter on rising received an ovation which it was evident he deeply felt. He expressed his gratitude in feeling terms, paid warm tributes to his old master, Mr. Moreton, his colleagues at the infirmary, and his numerous friends, all of whom he hoped often to see again. He has received the appointment of surgeon to St. Peter's Hospital in the place of Mr. Walter Coulson, and leaves Liverpool with the good wishes of all his professional brethren.

Death of Henry Lowndes, L.K.Q.C.P.I.

The circumstances attending the death of Mr. Henry Lowndes make it particularly sad, and its announcement was received with much regret by a wide circle of friends, much sympathy being felt for his widow and other relatives. He had not yet completed his sixty-second year, and up till very recently appeared to be in his usual good health. But he had been subject to varicose veins in his right leg; and one of these recently becoming ulcerated, he was advised to abstain from work for a time. Not wishing, however, to disappoint his patients, he continued to visit them until he became physically unable to do so, and when at last he took to his bed, it was evident to his medical attendants, Dr. Glynn and Mr. George Hamilton, that his case was a very serious one. In spite of all their efforts and of the most devoted nursing, he sank and expired shortly after noon on the 14th. He was educated at the Liverpool Royal Institution, receiving his medical education in Liverpool and Edinburgh. He was house apothecary at the Liverpool Royal Infirmary from 1851 to 1853, and then commenced private practice, becoming honorary surgeon to the South Dispensary, and later on junior surgeon and full surgeon to the Northern Hospital. This office he resigned in 1881, being elected consulting

surgeon, which office he held at the time of his death. He was always of a very modest, retiring disposition, preferring a quiet domestic life, and employing his leisure time in the study of medical and other literature. He was an accomplished linguist, and published a book of "Poems and Translations," as well as one on "Maintenance of Health." He also contributed many papers and cases to the medical periodicals. His funeral took place to-day, and was attended by a very large number of his medical friends.

Liverpool, Oct. 16th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

AT the late presentation of prizes to the evening classes in connexion with the Durham College of Science Professor Garnett spoke of the difficulty of students attending classes in the evening when they commenced work so early as six o'clock in the morning, and he urged the necessity of further rest for the young men, and thought it might be arranged, without loss to the employers, that apprentices should be allowed to lose a quarter in the morning when attending evening classes. Most people who consider the requirements of lads as to sleep will agree with Professor Garnett's suggestion as having a sound physiological basis, and it is to be hoped it may be acted on.—I hear that the affiliation project shadowed forth by Mr. Lawson Tait on his late visit to Newcastle, whereby the colleges at Birmingham might be connected with the University of Durham, in a similar manner as the Newcastle College of Medicine is at present, is now under the consideration of the authorities at Durham. Some doubts are expressed by outsiders as to the feasibility of the scheme; it must, however, be remembered that the doubters have no real knowledge of the full scheme or how the negotiations are proceeding at Durham.—As an instance of the increased interest now being taken by workmen in our medical charities, it may be mentioned that the *employés* of Sir W. G. Armstrong, Mitchell, and Co., at Elswick, have contributed the large sum of £377 for the quarter to the medical charities of this city. Of this the Royal Infirmary takes £243.—Although I cannot quote exact numbers at present, I hear that the entries of students at the Medical College and Royal Infirmary are very large this session.

Sunderland.

Some alarm was caused in Sunderland by the death of a man from the bite of a dog. Dr. Drinkwater, who attended the man and gave evidence, made the matter very clear. He said the man had three severe bites on his arm, and worse bites he had never seen, but that the man was at the same time suffering from heart disease and chronic disease of the liver and kidneys, and that it was owing to these maladies and the shock that he succumbed.

Horse Flesh.

It appears from late police evidence given at Carlisle and Rothbury that there is an extensive traffic in the flesh of old and diseased horses between the north of England and Antwerp. The inspector stated that no less than seventeen old and broken down horses were despatched from Carlisle to Antwerp in one week, where they would be cut up for beef or sausages. Some men were fined also at the Rothbury Police-court last Saturday for cruelty to old horses, driving them when lame and in great pain from the upper part of the county of Northumberland down to the vicinity of North Shields, to be ready for shipment to the Continent. It came out in evidence that a better price was obtained when they were delivered just alive—viz., 2*s.* per stone.

Ambulance Work in the North.

Considerable activity is just now evident in the north as to ambulance work. At Morpeth Dr. MacDowall of the County Asylum and Dr. Brumwell have offered to give instruction to the classes formed at the mechanics' institution. At Bedlington also large classes have been formed, and some have been inspected by Surgeon-Major Hutton.

Memorial to a Medical Assistant.

Within the last few days a very elaborately carved monument has been erected in Birtley cemetery, by a few friends there, as a memorial of the late Mr. Borland, who was for some years assistant to Dr. Wilson of Birtley, county Durham. The feeling is to be commended which commemorates the memory of a faithful assistant.

Newcastle-on-Tyne, Oct. 16th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Opening of the Medical Classes.

IN connexion with the opening of the medical classes this year, it may be pointed out that many of the conditions of student life will be very considerably modified by the opening of the University Students' Union, by the alterations in the regulations for the appearance of candidates at the first professional examination, and by the new departure of granting special examinations on a regular system. Most of these subjects were referred to by one or other of the university professors or extra-mural lecturers in their opening addresses. It is announced, too, that the students have made arrangements to have a grand torchlight procession on the evening of the opening of the union. Referring to the new First Professional regulations, Professor Chiene said that it would be a question for future consideration whether there should not be a short course for junior students in the second summer session. By such a short course the great difficulty which constantly confronted him at the beginning and throughout the whole session—that he was dealing with two bodies of men—would undoubtedly be lessened; the gap between the junior and senior classes would be decreased, and their work, difficult as it was, would to a certain extent be lightened. Such an arrangement might with advantage be extended to other classes. Professor Chiene also referred to the apprentice system. He contended that the disappearance of the doctor's apprentice is by no means an unmixed good, and he dwelt with some fondness on the days when apprentice and dispensary work occupied a much more important position in medical education than they do in the present day. With the demands made by each professor on the time of the students for lectures, practical classes, clinical instruction, ward work, demonstrations, and post-graduate clinical instruction and infirmary residence, one wonders where and when the student is to get time for it all unless he pursues his studies for some such extended period as, say, a decade. If there is too little practical instruction at present there must be too much lecturing. That is the only way out of the difficulty. Professor Simpson took as the subject of his inaugural address, the question of the admission of women to the medical profession. Although he was by no means sanguine in regard to the employment of women in the medical profession in this country, he laid great stress on the fact that there was a very wide field in which they might work in India and elsewhere. Few of the other professors gave a special opening lecture, most of them contenting themselves with dealing with part of the work of the course.

Rearrangements in the Extra-mural School.

Since last session several rearrangements have been made in the lecturing staff in the Extra-mural Medical School. Dr. Craig has removed from Minto House to Surgeons' Hall, where he succeeds Dr. G. A. Gibson as lecturer on Materia Medica. Dr. Gibson now lectures on Practice of Physic at Minto House School of Medicine, and Dr. Ralph Stockman, late senior assistant in the Materia Medica department in the University, has succeeded Dr. Craig. All these gentlemen announced that they would deliver the first lectures of their courses to-day. Dr. Craig, in his opening address, speaking of the extra-academic Medical School, pointed out that it was founded by the Royal College of Surgeons, and that it had been in existence doing good work, for a period of 384 years, so that in sixteen years there would be a celebration of its 400th anniversary. Other changes in the school are the removal of Dr. Scott Lang to the old Dental Hospital and of Mr. Drinkwater to the adjoining buildings in Chambers-street. Most of the classes were crowded, and one wonders where all the students come from. The Anatomy students, however, are not settling down well, many of them appearing to be waiting to see whether Dr. Symington is to be appointed to the Aberdeen chair or not. Nothing has yet transpired as to the course that Lord Lothian will pursue in filling up the

vacancy, though the Aberdeen men are no doubt as anxious as the Edinburgh men are to have the post filled at once.

Funeral of the late Mrs. Gunning.

Many would hear with feelings of deep regret of the death of the lady whose remains were buried in the Grange Cemetery to-day. Dr. Gunning's name will be handed down in connexion with the numerous munificent prizes given to the University of Edinburgh and the Edinburgh Colleges. He has warm friends in both Scotland and England, many of whom were present at the funeral.

New Prizes in the Extra-mural School.

A valuable gold medal for Materia Medica and Therapeutics has been presented for competition to the Royal College of Surgeons by Colonel William Lorimer, Bathgate, in memory of his father, who was a lecturer on Materia Medica in the Surgeons' Hall. A second prize is one of £20, to be awarded to the best student in Chemistry at the Marshall-street School. It should have been mentioned that Dr. Matheson has commenced a course of lectures on Midwifery and Gynæcology in this school.

The Scottish Universities' Commission.

It appears to be an open secret that the Scottish Universities' Commission held a kind of preliminary meeting on Monday, when arrangements were made for the regular meetings, which are to commence in January next.

Edinburgh, Oct. 15th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Death from Chloroform in the Richmond Hospital.

A WOMAN named Delaware, aged forty-seven years, died on the 12th inst. during the administration of chloroform. The deceased was suffering from disease of the bone of the left thumb, caused by an injury received about a month previously. An operation being considered advisable, she was brought into the operating theatre last Saturday morning, and, the heart having been examined, a little chloroform was administered prior to the use of ether. Before she was fully under the influence of chloroform dangerous symptoms occurred, and death supervened. A post-mortem examination showed that death took place from fatty degeneration of the heart, and the coroner's jury found a verdict in accordance with the medical evidence, and expressed the opinion that the chloroform had been skilfully and properly administered.

Royal College of Surgeons in Ireland.

Two members of Council have resigned—viz., Messrs. Corley and Kidd, the last named owing to an informality in reference to his election in June, while Mr. Corley retires in order to become eligible as a candidate for a professorship of surgery in the Amalgamated Schools. Mr. Kidd is a candidate for re-election, while Dr. Frazer and Messrs. Swanzy and Lentaigne also seek seats on the Council. The election for these two vacancies will take place on the 22nd inst. On Nov. 7th the Council will elect professors in the subjects of anatomy, physiology, and pathology, and Mr. Heuston, member of Council, will retire, as he seeks election to the chair of anatomy.

St. Vincent's Hospital, Dublin.

Considerable changes have recently taken place in the medical staff of this institution. Dr. McHugh succeeds Dr. Quinlan as visiting physician, and Dr. O'Carroll leaves the Richmond Hospital and becomes attached to St. Vincent's as physician to the extern department. Mr. Pattison will be surgeon for the extern department, and Drs. Moore and Thompson resident medical officers.

The Distribution of Enteric Fever in Dublin.

Enteric fever prevails rather extensively at present in Dublin, and some observations on the distribution of enteric fever in the city of Dublin, by Dr. Grimshaw and Sir Charles Cameron, published in an appendix to the latter gentleman's annual report for 1888, may not be out of place at this particular time. When it is remembered that enteric fever is generally considered to be dependent on defective drainage or impure water-supply, it is difficult to understand why for some years the disease has shown a tendency to increase, especially as the water is remarkably good, and the drainage has been steadily though slowly improving. Pettenkofer has shown that the geological condition favourable to the spread of cholera is also favourable to the prevalence of enteric fever, and cholera in 1866 prevailed to a much greater extent on the gravel beds than on the stiff clay, these formations constituting the ground on which Dublin and its suburbs are situated. For example, the deaths on the gravel beds were at the rate of 1 in 365 of the population, while off the gravel the rate was only 1 in 531. One reason why we might expect to find a greater prevalence of enteric fever in the gravel is afforded by the fact that it lies at a lower elevation than the clay, and in many places rises scarcely above high water in the river and its estuary. The gravels in Dublin are, in fact, waterlogged for a large portion of the twenty-four hours. As the gravel everywhere interposes between the clay and the river, the whole of the drainage of the latter, except that portion which enters the sewers, passes into the gravel.

Muzzling Dogs.

By a recent order dogs are prohibited, under a penalty, from going without a muzzle in the South Dublin district; but, strange to say, this rule does not apply to the north part of the city.

Dublin, Oct. 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The French Congress of Surgery.

THE fourth Congress of French Surgeons commenced its sittings last Monday in the large lecture theatre at the Paris School of Medicine. Although styled a French Congress, it partakes more perhaps of an international character, for several foreign surgeons of note were present, amongst whom may be mentioned Sir Thomas Longmore of Netley, Tilanus of Amsterdam, Thiriar of Brussels, Démosthène of Bucharest, Roux of Lausanne, Reverdin of Geneva, Bloch of Copenhagen, and others. Baron Larrey, the president, and the descendant of the famous Larrey, the military surgeon of the Napoleonic campaigns, opened the sitting in a neat address, in which he welcomed the foreign surgeons, and referred to the loss French military surgery sustained in the death of Legouest and Perrin. Then began the reading of papers. One of the most interesting of those read so far was that by M. Guyon on the "Immediate and Remote Results of Operations for Local Tubercular Disease," which gave rise to an animated and instructive discussion. M. Guyon gave the detailed record of three cases of tubercular disease of the bladder on which he had operated. One patient had suffered from vesical tubercular disease for two years previously to operation, which was undertaken in July, 1885. He made a good recovery and has had no recurrence. The second case, on which he operated in April, 1887, succumbed in July, 1889, two years after, to suppurating nephritis, a complication which M. Guyon says existed at the time of the operation. At the autopsy the left kidney was found to be completely destroyed, and the right was also deeply involved, but nowhere could the most minute search reveal a return of the tubercular growths. This, of course, was the interesting and important point, and M. Guyon had therefore good reason for believing that had it not been for the kidney lesion the scraping and the application of the actual cautery which the bladder underwent would have cured the patient. The explanation of these encouraging results was to be found in the fact that tubercular disease of the bladder had its origin very superficially. It has indeed been shown to begin in the mucous membrane, and to be there confined for some period, invading later on the deeper coats, so that a time comes when it must be pronounced inaccessible; but how to define this limit is not an easy matter. His third case was one he operated on in 1888 for vesical mischief dating back nine months. The kidneys here also were evidently diseased, yet, as the patient was in considerable pain and could get no repose, being compelled to micturate as often as 100 times in a night, M. Guyon resolved to try to relieve his sufferings. And in this he was successful, for the operation which he practised, a supra-pubic one,

greatly ameliorated the distressing symptoms, and although he could hardly hope to save one with kidney disease so advanced, still he lived in comparative comfort until carried off by his renal malady a year afterwards. Here, again, at the autopsy, M. Guyon was gratified to find that there was not the smallest trace of a return of the tubercular matter. In these cases he much preferred the supra-pubic operation, as undoubtedly the safer; but how to diagnose when the disease has obtained too great a hold for operation is by no means easy. The symptoms are dated so differently by patients that the fixing of the limit in this way is misleading. Of his three cases, one referred his symptoms back two years, the other two at eight and nine months respectively. Of the three, it will be observed that the only one cured was the first. M. Lavaux thought that in all these cases the kidneys would be found to be irreparably diseased, and that it was beyond our power to arrest the tubercular evolution; and inasmuch as one could alleviate the patient's sufferings by other means, such as by the injection of boricated solutions and cocaine, vesicotomy, with its attendant risks, was hardly justifiable. M. Guyon rejoined that he was not to be understood as being an indiscriminate advocate for a cutting operation. He admitted that one might in many cases relieve the patient by simpler methods, but when these failed, or were no longer beneficial, he would, rather than leave the patient to his sufferings, intervene, as he had done in the examples given. Seeing, too, how greatly the risks of operation were now reduced, and the encouragement to be gathered from the superficiality of the tubercular process in the early stages, he considered it almost his duty, in the interests of his patient, to go further. M. Verneuil did not take a very favourable view, surgically, of tubercular mischief in whatever part of the body it manifested itself. He did not remember to have seen many patients living ten years after they had undergone amputation for tubercular growth; although he allowed that when this disease invaded the upper extremity, it was much more susceptible of cure than when it appeared in the lower limbs. As to immediate results, one had, on the whole, the right to take an optimistic view; but it was otherwise should one take into account the fate in store for those operated upon. Before he was told of the "cure" of one of these cases, he would like to be informed what were precisely the lesions for which the operation was performed; what were the age, family history, and social status of the patient; what was the exact nature of the operation, and what was the treatment both before and after. M. Ollier, comparing the results of amputations with those of resections of the foot in the tuberculous, advocated amputation where there was any visceral lesion or where the patients were no longer young; but when conditions of age and constitution were favourable he preferred the conservative procedure. During the last four years he had resected the tarsus and ankle-joint thirty-two times, with only one death; and it was to be noted that in these operations on the lower limb the patient during convalescence was placed in a less favourable position than when it was a question of the upper extremity, owing to the longer time it was necessary to keep him indoors in the recumbent posture. As regards the remote results in these thirty-one cases, he admitted the time was too short to judge, but he had under observation other patients on whom he had operated five and six years ago, who were in excellent health and in whom he feared no return of the mischief. On the whole, therefore, he would counsel operative intervention in tubercular disease. M. Démosthène said that at the Hospital of Bucharest surgical tuberculosis furnished 15 per cent. of the cases. Of 429 tubercular admissions, he had operated on 281, with a mortality of 4·2 per cent. The immediate results therefore may be said to have fully justified operative interference. As to remote results, he was unable to speak positively, but he was, however of opinion that operation had put a great many of his cases beyond danger from ulterior tubercular trouble. It could not be pretended that surgical action was a specific for tuberculosis; the ideal would be rather to bring about a microbicidic action in the organism, but in the meanwhile, rather than rest with crossed arms, one ought to have recourse to those operations which, while not guaranteeing the future, yet gave results that could not be overlooked. M. Terrillon, speaking of tubercular disease of the genito-urinary organs, said he advised castration when the testicle was involved, and removal of the uterine appendages in cases of tubercular salpingo-ovaritis. He had performed this latter operation six times, with one death. He granted the difficulty of the operation owing to adhesions, as well as that of differential diagnosis, which could be made on general rules only. If, however, there was tubercular lung mischief, that seemed to him a further argument for the removal of the second and accessible focus of disease. The foregoing, in *résumé*, were the most important contributions to the discussion on this question. Another interesting item was the bringing before the Congress, by M. Roux of Lausanne, a patient on whom he had successfully performed the somewhat rare operation of resection of the iliac bone for osteo-sarcoma. Very considerable incisions had of course to be made to circumscribe the bone, and to separate it from its extensive muscular attachments, as well as from the ischium, the latter proceeding proving extremely laborious and difficult. The femur was divided obliquely near its head. Two months after this formidable operation the patient was able to be up and about. He is now quite recovered, and can walk in a sufficiently satisfactory manner. M. Roux was naturally much congratulated by the members of the Congress. M. Thiriar of Brussels next read the notes of a case of enormous fibro-lipoma of the fatty capsule of the kidney weighing no less than eleven kilogrammes, or about twenty-two pounds, for which he had operated. The patient was a female, aged sixty-three years, in whom the operator admitted he had diagnosed a multilocular cyst of the right ovary. The tumour showed itself in the left side first, and was said to have grown rapidly. The growth gave distinct signs of fluctuation, and was quite movable. Percussion was absolutely dull in the right, but resonant in the left, flank. The urine showed nothing abnormal. The operation was carried out under antiseptic precautions. There were no adhesions, but the right ureter and kidney were involved in the growth, and had to be ligatured and removed. The recovery was rapid and good. Three days after operation the urine passed amounted to 1300 grammes, and within a fortnight the patient went out perfectly cured.

Professional Services are Obligatory.

It will be recollected I gave in your columns recently an account of the dispute that has arisen between the medical practitioners of Rodez and the local authorities, in which the former, acting, as they thought, on their rights, declined giving their services to the authorities of the place in a certain emergency. For this the procureur-général of Montpellier sought to incriminate them under a certain article of the Penal Code, and issued summonses against them to appear to the charge at the local court. The medical men, it will be remembered, who were ably defended, stoutly maintained they were not bound to respond, and that, being private and therefore perfectly free practitioners of their profession, they could give or decline to give, as might to them seem fit, their professional services. The judgment, which was then postponed, has now been rendered, and it will surprise not a few who practise physic to learn that the gist of it is that here they are bound to give in good faith their professional services when solicited by those who represent the law. I gave at the time the precise wording of the article under which the medical men of Rodez were charged. The magistrate, in giving his decision, ruled that they were guilty of a contravention of the said article under the phrase *flagrant délit* which occurs in it, and therefore he fined them individually six francs, and collectively the costs of the process. The medical practitioners, I hear, are determined to carry the matter to the Court of Cassation—that is, the parallel in France of your legal House of Lords.

Paris, Oct. 15th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Inoculation against Inflammation of the Lungs in Cattle.

AT the end of last year the Prussian Minister of Agriculture ordered experiments to be made on cattle, in order to decide the extremely important question whether inoculation affords protection against infectious inflammation of the lungs in cattle or not. These experiments were carried out under the superintendence of Professor Schütz and the departmental veterinary surgeon Steffen, in the Government district of Magdeburg, and have recently been finished.

On Oct. 8th last twelve young bulls were inoculated with fluid and particles from diseased lungs; three with warm and three with cold fluid; three with warm and three with cold particles. Those inoculated with warm fluid contracted the disease most severely. On Oct. 26th all twelve, along with four uninoculated animals of the same age and breed, were placed among cattle suffering from infectious inflammation of the lungs, and their noses were repeatedly brought into the closest contact with those of the diseased animals for hours together. In December and in January all the animals were killed, and the post-mortem showed that the twelve inoculated animals had remained healthy, and that three of the four uninoculated ones had contracted the disease. The experiments were now repeated, special care being taken that all the animals (inoculated and uninoculated) were exposed to as nearly as possible equal degrees of infection, and that the fluid used for inoculation was taken warm from the lungs which had proved most effective. On Nov. 9th twelve young bulls were inoculated with different quantities (0·05 to 1·0 cubic centimetre) of warm lymph. The quantity of the fluid used did not affect the intensity of the local process. One bull died on the thirty-fifth day after inoculation of peritonitis, caused by the spread of the inoculation process. On Dec. 1st the inoculated bulls were placed among bulls suffering from infectious inflammation of the lungs, but did not contract the disease. On Jan. 27th they were taken to another stall, and again placed among bulls suffering from the disease in question. On April 12th the eleven inoculated and two uninoculated bulls were inoculated with warm lymph between the neck and the breast, after which the two latter became severely ill, and one of them died. The previously inoculated animals, on the other hand, showed only slight symptoms at the place of inoculation. On April 12th twenty grammes of warm lymph were mixed with 2000 of warm sterilised flesh broth and sprayed before the nostrils of the inoculated animals. They remained healthy. On May 13th they were again placed among others which were suffering severely from the disease in question. After this no morbid symptoms were observed in them. On June 26th one cubic centimetre of warm lymph was injected into the lungs of each of the inoculated and of two uninoculated bulls. The inoculated animals remained healthy, while the two uninoculated ones contracted the disease in a very severe form, and one of them died. At the end of July the inoculated animals were killed and dissected, and no abnormal developments were found. It therefore now seems to be proved that cattle inoculated with fresh warm lymph are protected against infectious inflammation of the lungs.

Daggeian Fever.

Some days ago the *Kreuz Zeitung*, one of the leading Berlin dailies, published the following communication, received from Athens, dated Sept. 26th:—"For a week past news have come daily from the Piræus to the effect that 'daggeian fever' (*Δάγγειος πυρετός*) has broken out there, but the statement has been persistently denied by the medical and governmental authorities. Yesterday, however, Alexandrogiannis, municipal sanitary councillor in the Piræus, in agreement with the physician Politakis, proved to the mayor in a report of some length that 'daggeian fever' is raging in the Piræus. The first cases were observed three weeks ago, and, as far as has yet been determined, more than a hundred persons have already been seized by the fever, the character of which, however, has proved in all cases to be benign. This fever, which is very frequent in Egypt and Syria, broke out with great violence in Smyrna two months ago, and about 4000 persons are said to have been seized by it there. Within the last few weeks, too, it has been spreading in Constantinople, for which reason the Greek Government forbade the import of clothes and clothing stuffs from Turkey till further notice. Despite this prohibition, however, it has spread to the Piræus. It is rarely fatal, but spreads very rapidly. The first symptoms are intense redness of face, neck, and hands, frequently accompanied by an eruption. The patient then feels violent headache, darting pains in the eyes, and humming in the ears; he cannot work, shuns the light, and sleep cannot be obtained. Gradually other parts of the body are attacked, till the disease settles with special vehemence in the legs, especially in the knees. The crisis comes within three to eight days, after which, with good medical treatment, the patient recovers in four or five days, but generally remains weak for two or three weeks longer. Comprehensive measures are now to be taken by the Government to prevent the further spread of the disease, but in prospect of the approaching festivities, the general anxiety is great." This communication induced Dr. Friedrich Hirtl to write the following remarks to the *Norddeutsche Zeitung:* "The *Kreuz Zeitung* hears from Athens that the 'daggeian fever' has broken out in the Piræus. I am myself by no means an authority on fevers, but suffered about thirteen years ago in Southern China from a disease which the English doctors called 'dengue fever' and the German doctors 'Dengelfieber.' To judge from the symptoms, 'daggeian fever' is identical with that disease. It is less dangerous than painful; it is said, too, to be rapidly and widely contagious, as a case mentioned by Sale in his 'Anglo-Indian Glossary' shows, according to whom the father of an officer who suffered from this fever in the Bermudas was seized by the same disease in England three days after receiving a letter from his son, without, however, the fever spreading further. The name 'dengue' or 'dengy' is said to have come from the West Indies, where the negroes called it 'dandy fever,' owing to the stiff attitude to which it temporarily condemned the patient, which name was brought to Europe by Spaniards, modified into 'dengy.' An epidemic of this disease is stated to have raged on the Coromandel coast in 1780, and in Calcutta, Berampore, and other places in India in 1824, 1853, 1868–69, and 1871–72. On the last-mentioned occasion 70 per cent. of the European and native railway officials in Calcutta are said to have been seized by it. It seems that the disease has spread in the Mediterranean countries from Egypt." The *Frankfurter Zeitung* also prints a letter from Smyrna, dated Sept. 23rd, stating that an epidemic was raging, which, though not dangerous to life, had spread to a quite extraordinary extent, and in that city of 200,000 souls had attacked more than one-half of the population. It was called "deng," began with a shooting megrim, pains in all the limbs, and fever rising to 40° centigrade, and left great weakness, which lasted for a week or a fortnight. It was said to be endemic in Egypt, and not unknown in Spain. It might easily make the tour of Europe, unless winter sets in early to prevent it. The doctors had not yet found out how to deal with it; quinine had no effect on it. For fear of quarantine annoyances people made a home secret of it as much as possible. It nevertheless deserved attention and investigation. It had thrown many disagreeable hindrances in the way of the export business, which was usually very brisk at this season; many offices were closed because all the clerks were ill, and trade was at a standstill.

The Holiday Colony Fête.

The fête given to the poor city children who have been sent to the mountains and forests and shores this summer by the Holiday Colony Society was a great success. The Empress Frederick and her daughters, the Princesses Victoria, Sophie, and Margaret, were present, and were accorded an enthusiastic reception from young and old. Her Majesty expressed the satisfaction she felt at the great and rapid development which the utilisation of the summer holidays for the benefit of the health of poor city children had taken in Germany, and especially in Berlin.

The German Anatomical Society.

The German Anatomical Society, which was founded in 1886, will meet in the Anatomical Institute here on the 10th inst. Its leading spirits are Professor Kölliker of Würzburg, Gegenbaur of Heidelberg, His of Leipsic, Waldeyer of Berlin, and Bardeleben of Jena.

The Imperial Pharmacopœia Commission will meet here on the 11th inst., to discuss the new third edition of the Pharmacopœia, which, it is hoped, will be published next year.

An excellent drawing by Albrecht Dürer was found lately in a medical book in a library at Zwickau. It represents a dying man sitting behind a stove and Death threatening to extinguish the light of life, while a female form personifying the Art of Healing approaches to save.

Berlin, Oct. 8th.

KINGS'S COLLEGE, LONDON.—The Clothworkers' Science Exhibitions of £100 and £50 have been awarded to S. H. Ellis and F. C. Sprawson, and the Sambrooke Science Exhibitions of £60 and £40 to A. Bousfield and W. R. Bryett.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the College, held on the 17th inst., the minutes of the ordinary Council of Aug. 1st were read and confirmed. It was agreed, on the recommendation of the Library Committee, that the library be opened on each week-day from the 21st inst. to Dec. 31st next, between the hours of 11 A.M. and 9 P.M., except on Saturdays, when it will close as usual at 1 P.M. It was also agreed, on the recommendation of the same committee, that Professor Muybridge's work on Animal Locomotion be purchased for the sum of £105, including the cost of mounting and binding. The other parts of the report from this committee were approved and confirmed.

The fifteenth report, dated Oct. 11th, of the Committee on the Extension of the College Premises, was read, adopted, and entered on the minutes. The Committee, having obtained the advice of Mr. E. Brace Hall, Chief Officer of the London Salvage Corps, and Mr. Salter, the architect, as to the additional fire apparatus required throughout the College buildings and for the protection of the two new museums, recommend the Council to sanction an expenditure for carrying out the suggestions made by Mr. Brace Hall and Mr. Salter, in accordance with estimates supplied by Messrs. Shand and Mason and Messrs. Higgs and Hill, that of the former amounting to £421, that of the latter to £140. With regard to the New Small Museum, the Committee recommend the Council to sanction an additional expenditure of £7 8s. for arranging the heating apparatus in a more satisfactory way than that originally proposed, and to accept the estimate of £757 by Messrs. Sage and Co. for supplying the wall-cases on the ground floor and first-floor gallery.

The report of the Committee of Management, dated Oct. 7th, was received and adopted. The Council, in pursuance of this, proceeded to the election of a member of that committee, in the vacancy occasioned by the President's retirement, he being eligible for re-election. Mr. Jonathan Hutchinson was elected to the vacancy.

The Council then proceeded to the election of the four Examiners in Public Health nominated by the Committee, and Drs. Stevenson, Ballard, Thorne Thorne, and Corfield were re-elected.

It was referred to the legal advisers of the College to advise the Council on the important question whether the General Medical Council has the power legally to impose on the licensing bodies the conditions on which diplomas in public health are to be granted by them.

The Council approved of the unanimous recommendation of the Committee of Management that the period of professional study should be extended from four to five years, and it was referred to the Committee to consider and report to the two Colleges on the best mode of giving effect to such recommendation.

Mr. John Langton, member of the Court of Examiners in Surgery, and Mr. Morton Smale were elected as members of the Dental Board.

The Council then proceeded to the consideration of the draft of the report to be presented to the Fellows and Members of the College at the meeting appointed to be held on Thursday, Nov. 7th. The report was adopted, and will be presently circulated.

It was agreed, on the motion of Mr. Heath, that it be referred to the Nomination Committee to consider and report to the Council on all vacancies occurring from time to time in the Court of Examiners.

Obituary.

DR. ADOLF FERDINAND DUFLOS.

THIS eminent pharmacist died on the 9th inst. at Annaberg, in Saxony, in his eighty-eighth year. He was born on Feb. 2nd, 1802, at Artenay, near Orleans, where he lost his parents when quite a boy. His uncle, who was a military surgeon in the service of France, brought him with his regiment to Germany and placed him as a pupil in the house of the Rector of the Torgan Lyceum. The boy, having shown a decided talent for chemistry, particularly in its medical aspects, was apprenticed to a professor of pharmacy in Annaberg, and thence, after a six years' probation, he proceeded to Breslau, where he continued to perfect himself in the subject at the famous Olearius Institute for eight years more. Thereafter he was appointed to the post of assistant lecturer in pharmacy in the University of Halle, and gave much satisfaction to his pupils during the three years he held the chair. Having returned to Breslau, he founded there, in conjunction with the eminent apothecary Langsch, a *fabrique* for pharmaceutical preparations, and at the same time inaugurated a course of lectures on Pharmacy as the Handmaid of Medicine. He published also many valuable works on his special subject, and their scientific value, high professional tone, and unusual literary merit induced the Breslau University to bestow on him, *honoris causâ*, its degree of Doctor in Philosophy. In 1842 he became Professor of Materia Medica in that seat of learning, having specially qualified himself by graduation for the post; and during a quarter of a century he drew around him an increasing number of pupils, attracted by his luminous exposition, his neatness and skill in experiment, and the charm with which he invested his subject. Advancing years and the consciousness of failing power led to his retirement in 1866, and till the day of his death he resided at Annaberg, the scene of his earliest studies, retaining to the last an active interest in the science and the profession in which, for so many years, he was an acknowledged master.

DR. PIETRO LAURA.

THIS able and versatile physician has just died at Genoa, after a life of steady medical work and public philanthropy. Like most of his septuagenarian contemporaries, his early studies were broken by the revolutionary upheaval of 1848—a movement in which he took part as "medical volunteer" in the ranks of "Young Italy." He served honourably not only as a surgeon, but as a combatant in the struggle against Austria, which closed so disastrously for his country at Novara, till renewed ten years later, and with victorious results, by the sub-Alpine statesman, Cavour. Having so distinguished himself in the campaign of 1849 as to earn the rank of staff-surgeon, he resumed his medical studies on the declaration of peace, and with other young Italians sought a home in the Argentine Republic, where he soon rose to be Director-in-Chief of the Civil and Military Hospital of Goaleguaychù. Another post he held concurrently with this was that of First Physician to the President of the Argentine Republic, Señor Urquina, whose brilliant achievements included the expulsion from Buenos Ayres of the absolutist adventurer, Rosas.

Dr. Laura exerted himself assiduously to promote the welfare of his countrymen in South America, and contributed to make the Argentine Republic the attractive resort it has long been for the Italian emigrant. He founded the first newspaper—a journal of moderate and enlightened views—ever published there in the language of Italy. Of late years he had come to reside permanently in his native land, and continued to earn the gratitude of his compatriots as a practitioner among the poor till death overtook him in the scene of his honourable labours.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 10th inst.:—

W. A. Perry, student of University College; H. N. C. Atkinson, E. C. Adams and J. L. A. Hope, of St. Bartholomew's Hospital; W. E. de Korte, of Guy's Hospital; J. B. H. Dawson, of St. Mary's Hospital; W. B. Stanford, of Middlesex Hospital; W. H. A. Tebbs, of Westminster Hospital.

Anatomy only.—E. H. Smith, J. Kyffin, and C. E. Dawes, of London Hospital; J. R. Richmond, of King's College and Mr. Cooke's School of Anatomy and Physiology; J. H. Crawshaw and W. H. J. Huthwaite, of University College; W. P. Q. Daly and L. W. Bathurst, of St. Bartholomew's Hospital; R. S. Whitford, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—T. Stevens, H. D. Senior, H. Gardner, and J. H. Whitehead, of Charing-cross Hospital; D. L. Thomas, F. G. Scott, F. W. Walters, W. R. Mathews, F. J. A. Baldwin, and G. A. Simpson, of London Hospital; R. J. Rastrick and C. H. Willis, of

St. Bartholomew's Hospital; T. W. Smith and J. B. O. Richards, of King's College; W. J. Covey, of University College; H. W. Ramsay, of St. Mary's Hospital and Mr. Cooke's School of Anatomy and Physiology; W. A. Hayes, of Trinity College, Dublin, and University College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were at the ordinary meeting of the Council on the 1st inst. admitted Members of the College:—

Birkenhead, Harold, L.R.C.P.Lond., Witherby Rectory, Atherstone.
Borrett, George Goss, L.R.C.P.Lond., Philpot-street, E.
Jamieson, Sydney, L.R.C.P. Lond., Melbourne-place, Edinburgh.
Kempthorne, Albert Edwd., L.S.A., Oakley Neath, Glamorgan.
Lewers, Alex., L.R.C.P. Lond., Delamere-crescent, W.
McGowan, Jas. Sinclair, M.B. Victoria Univ., King-st., Oldham.

The following members, having previously passed the necessary Examinations, and having attained the legal age (twenty-five years), were at the same meeting admitted Fellows of the College:—

Dean, Henry P., L.S.A., University College Hospital; diploma dated June 9th, 1887.
Ward, A. H., L.R.C.P.Lond., St. Geo.'s Hospital; Nov. 10th, 1887.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the First Examination in Medicine of this University:—

Upper Pass Division.—Chas. Birmingham, Joseph Boyd, John Burns, William Chancellor, Edmond Kelleher, Purcell Lalor, Wm. McMath, Daniel O'Connor, Michael O'Reilly, John Wallace.
Passed.—Patrick Brady, John Brownless, William Canning, Thomas F. Chambers, John Dunne, Thomas Fennelly, Joseph W. Furey, George Griffiths, Amelia Grogan, James Lawther, John Longford, Florence McCarthy, Patrick McCarthy, Daniel Magee, Samuel Magowan, Jas. Mortell, John Patrick, John H. Thompson, Francis Whitaker.

The following candidates passed the Second Examination:—

Upper Pass Division.—*Alexander Blaney, *Robert Campbell, *Thos. Howard, James Lynass, *Daniel O'Callaghan, Daniel O'Driscoll, Patrick O'Sullivan, R. Torney.

* These may present themselves for the further examination for honours.

Passed.—James Auglim, Thomas Atkinson, Robert Beatty, Patrick Bennett, Michael Boyle, Richard Crosbie, Charles H. Foley, William Gordon, James Graham, William Hamilton, Benjamin H. Hosford, Patrick McGann, Adam Moss, Thomas Murphy, Patrick J. O'Brien, Michael O'Sullivan, David J. Ryan, James A. Scott, and Thomas H. Scott.

ROYAL VICTORIA HOSPITAL, BOURNEMOUTH.—An intimation has been received by the Committee of this hospital that the Prince of Wales has consented to open this hospital on Jan. 16th next.

THE PERSIAN GULF.—The British representative at Lisbon telegraphed under date of Oct. 9th as follows:—"Ports in Persian Gulf declared free from plague, but suspected of cholera."

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—An anonymous benefactor has forwarded, through Dr. Robertson, a donation of £50 towards the funds of this hospital.

SERIOUS FOOTBALL CASUALTY.—A young man named Kingston, during a Rugby football match played at Rochdale on Saturday last, between Rochdale Albion and Milnrow Clubs, had his leg broken, besides sustaining internal injuries.

VACCINATION.—Mr. E. Climson Greenwood, L.R.C.P., M.R.C.S., has been appointed by the Privy Council Teacher of Vaccination at the Welbeck-street and Omega-place, St. John's-wood, stations, vice W. A. Limmer, deceased.

NINETEENTH CENTURY ART SOCIETY.—Saturday, the 26th inst., has been appointed for the private view of the Autumn Exhibition (the nineteenth) of the above Society, at the Conduit-street Galleries, and the Exhibition will open to the public on Monday, the 28th inst.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The quarterly court of the directors of the Society was held on Wednesday, Oct. 9th, at the house of the president, Sir James Paget, the necessary alterations in the new premises of the Royal Medical Chirurgical Society in Hanover-square not being sufficiently advanced to allow of the meeting there. Eight new members were elected, the deaths of three announced, and the resignation of one reported. Applications for grants were read from sixty-one widows, fourteen orphans, and three orphans on the Copeland Fund; and it was resolved that £1360 be distributed among them at the next court. The expenses of the quarter were £59 18*s.* 6*d.*

MEDICAL MAGISTRATE.—Dr. Macpherson Lawrie, of Greenhill, Weymouth, has been appointed by the Lord Lieutenant a magistrate for the county of Dorset.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Entrance Scholarships have been awarded to Mr. E. G. Richards (£60), Mr. A. E. Jerman (£60), and Mr. M. Farrant (£60).

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At the annual meeting of the Society of Medical Officers of Health, held at the Holborn Restaurant, London, on the 11th inst., Mr. Henry E. Armstrong, medical officer of health for Newcastle-upon-Tyne and the River Tyne Port, was elected president for the ensuing year.

RABIES.—The number of dogs in England officially reported during the week ending Oct. 5th as afflicted with rabies was eight, against a similar number in the previous week. All the eight were killed. The distribution was as follows:—York (West Riding), four; and London, Northampton, Essex, and Kent, one each.

SUICIDE OF AN ARMY SURGEON.—On Monday Mr. H. K. Fuller, M.B., M.R.C.S., an army surgeon, threw himself in front of the up Salisbury train as it was approaching Wimborne Station. The front guard of the engine struck him, and the blow broke his neck. Deceased was thirty-two years of age, and was under treatment for mental infirmity.

A LECTURE ON HYDROPHOBIA.—Sir Henry Roscoe will take the chair at a meeting of the Balloon Society to hear a lecture by Mr. Frank Kerslake on the Cause and Prevention of Hydrophobia, in St. James's Hall (Regent-street entrance) on Thursday, Oct. 24th, at eight precisely. A resolution in support of Sir Henry Roscoe's Bill will be proposed by Dr. Fleming, C.B., President of the Royal Veterinary College. Mr. Victor Horsley is expected to speak. Tickets for reserved seats may be had by application to Mr. Kerslake, 12, St. George's-square, Primrose-hill, N.W.

THE GLASGOW SOUTHERN MEDICAL SOCIETY.—At the annual business meeting held in their rooms on the 10th inst., the following office-bearers were appointed: President, Robert Pollock, M.B.; vice-president, James Erskine, M.A., M.B.; treasurer, James Hamilton, M.B.; secretary, Alexander Miller, L.R.C.P. Ed.; editorial secretary, John Brown, M.B.; seal-keeper, R. A. D. Robb, M.B.; court medical, Drs. Glaister, Morton, Macmillan, Gilmour, and Rankin; extra members to complete council, Drs. Tindal, Barras, and McPherson.

THE HAMPSTEAD DEADHOUSE.—Attention was again called by the jury, at an inquest held at Hampstead on Monday, to the pressing need of a suitable mortuary for the parish, for the reception of the dead. The building at present used for this purpose is a dilapidated shed, absolutely without the necessary conveniences and accommodation for a proper examination of a dead body. The jury added a rider to their verdict, requesting the Local Authority to provide so necessary a sanitary requirement for the parish.

THE REGISTRATION OF PLUMBERS.—At a public meeting recently held in Edinburgh for the purpose of promoting the registration scheme initiated by the Plumbers' Company, the secretary of the Edinburgh District Council presented his report, from which it appeared that 145 plumbers had been registered, and that the council was in a good financial position. Dr. Littlejohn, city officer of health, said he was glad to find a trade asserting itself in the way the plumbers were doing. The clerk of the Plumbers' Company stated that over 5000 plumbers had been enrolled on the company's register.

BOSTON HOSPITAL.—The eighteenth annual report of this hospital, founded for Boston and the neighbouring parishes, shows that during the twelve months ending June 30th, 1889, the number of in-patients was 175, and 123 visits were paid to patients at their own homes. The receipts for the year were £734 9*s.*, and the expenditure £735 15*s.* 11*d.*, leaving a deficit of £1 6*s.* 11*d.*, in addition to which there still remains a deficiency of £196 8*s.* 11*d.* on the building fund, despite the fact that the debt was reduced by about £200 during the year. The committee earnestly appeal for donations to clear this sum off.

THE VACCINATION COMMISSION.—On Wednesday another sitting of the Royal Commission on Vaccination was held at Richmond-terrace. Lord Herschell (the chairman) presided. Dr. W. Gayton, of the Fever Hospital, Hampstead, and Dr. F. W. Barry, of the Fever Hospital, Sheffield, were examined.

PRESENTATION.—A very handsome tea and coffee service has been presented to Dr. Prance, on his retirement from practice, by his patients and friends, as a testimony of their esteem and regard. Several patients have also given valuable presents. Dr. Prance, on resigning the appointment of honorary surgeon to the Sailors' Orphan School and Home after thirty-three years' service, was accorded a cordial vote of thanks by the committee of management, and his services retained as a member of the committee.

SHEFFIELD PHARMACEUTICAL SOCIETY. — The sessional inauguration of the Sheffield School of Pharmacy took place on the 10th inst., the proceedings being of the usual annual character. In the evening there was a large gathering of students, friends, and local chemists in the large room of the Whiteley's Institute, which is rented by the Society. Mr. Atkins (Vice-President of the Pharmaceutical Society of the United Kingdom), in his address to the students, pointed out the strides made in pharmaceutical education in recent years, and expressed his strong conviction that a prolonged enforced curriculum was still indispensable for students. The future of pharmacy was a matter of anxiety and speculation, but, for his own part, he thought that a process of natural selection would prevail; chemists and druggists would dissolve partnership, the chemist to practise pharmacy with a higher recognised status than he now enjoys, the druggist with a lower qualification, and, it might be, a limited licence, supplying more as a dryealter the varied requirements of the community. Subsequently the annual dinner of the Society was held in the Masonic Hall.

BESTOWAL OF THE CROSS OF THE LEGION OF HONOUR ON A NURSE.—An interesting presentation has recently taken place at Tonkin, where the Governor-General conferred on the Superior of the Sisters of Mercy the Cross of the Legion of Honour, in the presence of the troops. The Governor addressed the recipient in the following terms:—"Sister Maria Theresa, you were only twenty years of age when you first gave your services to the wounded at Balaklava, and were wounded in the execution of your duty; you were again wounded at Magenta. You bravely nursed the wounded through all our wars in Syria, China, and Mexico. You were carried off the field at Wörth, and before you had recovered from your injuries you were again performing your duties. When a grenade fell into your ambulance you, without hesitation, took it up in your hands and carried it to a distance of 100 yards from the ambulance, when it exploded, wounding you severely. No soldier has ever performed his duty more heroically than you have done, or lived more successfully for his comrades and his country. I have the honour to present you, in the name of France and the French army, with the cross, which is only conferred upon those who have shown remarkable bravery in action. Soldiers, present arms!"

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on October 15th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	244	62	..	51	..	357	442
North-Western Hospital	218	16	..	6	..	240	415
Western ,,	165	17	..	6	..	188	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	292	18	1	22	2	335	462
Northern ,,	407	..	..	..	..	407	480
Totals	1326	113	1	85	2	1527	2463

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BRACKENBURY, HENRY B., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden-square, W.

BRODIE, CHAS. GORDON, F.R.C.S., has been appointed Honorary Surgeon to the Western General Dispensary, Marylebone-road, N.W.

CAHILL, JOHN, F.R.C.S., has been appointed Surgeon to St. John's and St. Elizabeth's Hospital, Great Ormond-street.

CRUMP, THOMAS GREENWOOD, B.A.(Cantab.) M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the General Hospital, Birmingham, vice J. P. A. Walker, M.B., resigned.

DOUGHTY, D. S., M.B., M.S.Edin., has been appointed Medical Officer of the Ireby District, Wigton Union.

EDWARDS, F. SWINFORD, F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice Coulson, F.R.C.S., deceased.

FENWICK, E. HURRY. F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice W. Coulson, F.R.C.S., deceased.

HARRISON, REGINALD, F.R.C.S., has been appointed Surgeon to St. Peter's Hospital, Covent-garden, W.C., vice W. Coulson, F.R.C.S., deceased.

HARTILL, JOHN T., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer, Willenhall and part of Wednesfield, Wolverhampton Union.

HUBAND, A. E., L.R.C.P., L.R.C.S., Medical Officer and Public Vaccinator, Sutton District of the Loughborough Union, has been appointed Medical Officer to the Sutton Bonnington Amalgamated Friendly Societies, vice F. J. Hindle, resigned.

HUTTON, JAMES ALFRED, M.R.C.S., L.R.C.P., has been appointed Assistant Demonstrator of Anatomy at the University of Durham College of Medicine, Newcastle-on-Tyne.

MCNAIR, GEORGE, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Deddington No. 1 District of the Woodstock Union, vice Edward W. Turner, deceased.

MILLIGAN, WILLIAM, M.B., C.M., has been appointed Assistant Surgeon to the Manchester Ear Institution.

PHILLIPS, JOHN, M.B., C.M., L.R.C.P.E., L.R.C.S.E., L.F.P.S.G., has been appointed Resident Physician to the North London Hospital for Consumption, Hampstead, vice R. A. Bindley, M.R.C.S., L.S.A., resigned.

PRAGER, J. F., L.D.S., has been appointed Dental Surgeon to the Western General Dispensary, Marylebone-road, N.W.

RAWES, WM., M.B., F.R.C.S., has been appointed Assistant in the Physiological Laboratory of the London Hospital Medical College, vice E. Hurry Fenwick, F.R.C.S., resigned.

RAWLINGS, HORATIO E., L.K.Q.C.P.Irel., M.R.C.S., has been appointed Resident Medical Officer to the Swansea Hospital, vice Dr. Kerr.

STEIN, C. G., M.R.C.S., has been re-appointed Medical Officer of Mansfield-Woodhouse.

THORBURN, WILLIAM, B.S. Lond., F.R.C.S., has been appointed Honorary Assistant Surgeon to the Manchester Royal Infirmary, vice F. A. Southam, F.R.C.S.. who has been appointed Honorary Surgeon.

TURNER, EDWIN, M.R.C.S., L.S.A., has been re-appointed Medical Officer, Stourbridge Rural District.

WINFIELD, ROLL G., L.R.C.P.Lond., M.R.C.S., has been appointed House Surgeon, Leicester Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD INFIRMARY AND DISPENSARY.—House Physician. Salary £100 per annum with board.

BURTON-ON-TRENT INFIRMARY. — House Surgeon. Salary £130 per annum with a prospect of increase, and rooms in the infirmary free, also coals and gas.

CHARING-CROSS HOSPITAL, London.—Surgical Registrar, for one year, at a salary of £40, but the holder is eligible for re-election.

FLINTSHIRE DISPENSARY, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free, with a prospect of £20 increase after twelve months; also coal, light, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Assistant Physician, for three years. Honorarium £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Resident Medical Officer as House Surgeon, for one year. Salary £50 per annum, with board and residence in the hospital.

LIVERPOOL DISPENSARY, 34, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, together with apartments, board, and attendance.

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon. Salary £80, with maintenance in the house.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

NORTH RIDING INFIRMARY, Middlesborough-on-Tees.—House Surgeon.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Senior Resident Medical Officer. In the event of the Assistant Medical Officer being appointed to the senior post, candidates should state if they will take the Junior appointment. Also Two Clinical Assistants, Department for Diseases of the Skin

PARISH OF THE UNITED PARISHES OF WHITTLESEY.—District Medical Officer and Public Vaccinator. The Medical District comprises the northern portion of the parish; the Vaccination District comprises the outlying portion of the parish. The salary as District Medical Officer will be £70 per annum, with the usual extra medical fees for midwifery and surgical cases. The fees for vaccination and revaccination will respectively be 3s. and 2s. per case.

PARISH OF EDAY, Orkney, to Inspector of Poor.—Resident Medical Officer. Salary £70 a year and practice.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board and residence.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House Surgeon and Resident Obstetric Assistant Surgeon. Salary £120 per annum, with board and residence.

THE COUNTIES ASYLUM, Carlisle.—Junior Assistant Medical Officer. Salary £80, with board.

UNIVERSITY COLLEGE, Liverpool.—Lectureship in Children's Diseases. The emolument is derived from the class fees.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W. Ophthalmic Surgeon.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon. Salary £50 per annum, with board and residence in the hospital.

WOLVERHAMPON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Surgeon. Salary £100 a year, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ARNOTT.—On Oct. 9th, at Hamilton-drive, Hillhead, the wife of Surgeon-Major James Arnott, M.D., Grant Medical College, Bombay, of a daughter.

CLARKE.—On Oct. 9th, at Bungay, Suffolk, the wife of G. C. Clarke, L.R.C.P., of a daughter.

HAYES.—On Oct. 12th, at Eversleigh, Sandgate, the wife of J. P. S. Hayes, Surgeon Army Medical Staff, of a daughter.

MATTHEWS.—On Oct. 11th, at S. Owen-street, Hereford, the wife of S. R. Matthews, M.D., of a daughter.

MOUAT.—On Oct. 7th, at Redcliffe-gardens, Southsea, the wife of Surgeon-Major Mouat, M.D., Medical Staff, of a daughter.

POTTER.—On Oct. 11th, at Belsize-terrace, Fitzjohn's-avenue, N.W., the wife of George W. Potter, M.D., of a son.

SMITH.—On Oct. 9th, at Craigholm, Upper Clapton, the wife of Gerard Smith, Surgeon, of a son.

SMITH.—On Oct. 6th, at Kensington-gardens-square, the wife of Dr. Stanley Smith, of a daughter.

MARRIAGES.

CAVENAGH—WHITEHEAD.—On Oct. 9th, at Haslingden, John Paul Cavenagh, of Hull, L.K.Q.C.P.I., L.R.C.S.I., youngest son of the late Francis Cavenagh, Esq., of Dublin, to Annabella, second daughter of Thomas Hoyle Whitehead, Esq., Holly Mount, Rawtenstall.

FASKEN—TOMPKINS.—On Oct. 3rd, at St. Peter's Church, Southsea, William Andrew Durnford Fasken, M.D., Surgeon-Major Bengal Army, to Annie Gregson Tompkins (Dolly), third daughter of the Rev. C. R. Tompkins, Vicar of St. Peter's, Southsea.

FOTHERGILL—ARMOUR.—On Oct. 1st, at Morningside Parish Church, Edinburgh, John A. Fothergill, M.R.C.S., Darlington, to Christian Stewart, second daughter of the late Alex. H. H. Armour, Craigton House, Winchburgh.

GAHAGAN—SMITH.—On Oct. 10th, at Bath-street, Portobello, Edinburgh, Francis Evatt Gahagan, M.B., L.R.C.S.I., Stanningley, Leeds, to Annie Turnbull, youngest daughter of George Smith, builder, Portobello.

LEWIS—HODGSON.—On Oct. 8th, at St. Mary Abbot's, Kensington, Charles Lewis, M.R.C.S., M.S.A., of Folkestone, to Alice Sarah Hodgson, of Cricket-hill, Yateley, Hants, and widow of the late Richard Hodgson, Esq., of Hawkwood, Essex.

PEARCE—ARNST.—On Oct. 15th, at St. Matthew's, Bayswater, by the Rev. Filmer Sulivan, Vicar, assisted by the Rev. O'Brien Hodge, Vicar of St. Peter's, Paddington, Walter Pearce, M.D. Lond., B.S., M.R.C.P., of 63, Montagu-square, eldest son of J. D. M. Pearce, M.A., J.P., Maidenhead, to Christine, eldest daughter of A. Arnst.

PERKS—TREGASKIS.—On Oct. 15th, at Cardiff, Robert Howell Perks, M.D., F.R.C.S., Medical Superintendent of the Adelaide Hospital, Adelaide, South Australia, eldest son of the late Henry Perks, Esq., of Monkton Combe, Somerset, to Frances Mary, eldest daughter of the late Henry Tregaskis, Esq., of Cardiff.

DEATHS.

COCKCROFT.—On Oct. 13th, at Catterick, Yorkshire, William Cockcroft, M.R.C.S., aged 74.

FULLER.—On Oct. 14th, at Wimborne, H. K. Fuller, M.B., M.R.C.S., late of Indian Medical Department, Madras, aged 32.

LOWNDES.—On Oct. 14th, at Catherine-street, Liverpool, Dr. Henry Lowndes, aged 61, fourth and last surviving son of the late William Lowndes, Judge of the Liverpool County Court.

MACKIE.—On Oct. 11th, at Strathview-villa, Brechin, John Mackie, Sen., L.R.C.S. Edin., aged 80.

ROBERTS.—On Oct. 14th, at Alfreton, Theophilus L. Roberts, L.R.C.P. Edin., M.R.C.S.

ROYSTON.—On Oct. 15th, at St. Stephen's-crescent, Westbourne-park, W., suddenly, Charles Royston, M.D., in his 61st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 17th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Oct. 11	29·45	S.	49	48	65	54	47	·02	Foggy
,, 12	29·64	S.W.	46	44	90	60	43	·10	Fine
,, 13	29·81	W.	41	40	75	57	39	..	Hazy
,, 14	29·96	W.	40	40	65	63	40	..	Foggy
,, 15	29·94	S.W.	50	49	99	61	40	..	Foggy
,, 16	29·77	S.E.	57	56	74	62	50	·02	Overcast
,, 17	29·78	W.	49	48	86	60	47	·20	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE TITLE OF PHYSICIAN, &c.

MR. J. B. PIKE, after alluding to questions of title and vindicating th claim to that of Physician by the Licentiates of the Edinburgh College (having been assured by the College that it is his legal title), and denying the right to it of "the omnivorous M.D.," unless confirmed by a College of Physicians, proceeds to raise various other questions arising out of recent correspondence in our columns, particularly the knowledge of insanity possessed by the average medical man. He says:—

"Another of your writers takes it for granted that the 'average' medical man knows nothing of insanity. At St. Thomas's, and, I believe, at Guy's, there was systematic instruction in that subject twenty years ago. On going with the friend of a patient to an asylum to visit a general paralytic, I was asked by the superintendent, 'Do you know anything about general paralysis?' Of course, some practitioners are not well grounded, as can be seen by reading their certificates; but at the same time any specialist must know that in palpably insane cases it is often the most difficult to put the evidence of insanity in black and white. From another of your correspondents comes the usual jeremiad as to the state of the profession. Oh, for a strong Council, elected by the profession, and acting in its interests! If we had that, titles could be fixed beyond dispute, quackery could be restricted both within and without the Register, the abuse of medical charity could be curtailed, every student could be obliged to pass over that *pons asinorum* of the alienist, general paralysis, and, in fact, a medical millennium might dawn. Meanwhile, we must fight our way as we are able; our own conscience must be our law as to our titles, and we must learn as much about general paralysis as we can."

G. H. G.—We think any public-spirited individual would be glad to make known a "cure" for hydrophobia. But many so-called "cures" have been extolled, and none of them has, so far as we are aware, justified the name.

Mr. H. E. L. Canney.—A solitary case would hardly be of much value.

COCAINE IN THE TREATMENT OF DIABETES.

To the Editors of THE LANCET.

SIRS,—In your last issue Dr. Thos. Oliver gives a very interesting account of his case. But how is cocaine pyrogenic? In cocaine poisoning there is no rise of body heat—at least, in the two cases I have seen there was not. Again, in its physiological action of palliating the effects of starvation, dispelling mental and bodily fatigue, it is not by increased heat, but by reducing the metabolism, that it acts; and, as in the case in question there was no rise of temperature, does not this action account for the decrease of sugar in the urine?—Yours truly,

Oct. 14th, 1889. RICHD. LAKE.

THE GUTHRIE MEMORIAL AT ESHER.

G. R. P.—The marble cross erected at the grave of the late Dr. Guthrie of Esher was the work of Mr. T. J. Williamson, whose artistic skill was placed at the service of the subscribers gratuitously, in token of his esteem for the deceased gentleman.

Messrs. Holden and Byrne.—We know of no paper containing the information since the preparation of a return by the Local Government Board in 1882, for the purposes of the Select Committee of the House of Commons on Police and Sanitary Regulations, and that return is necessarily now out of date, because the number of authorities then having powers in this matter was comparatively small. But of some fifty towns now having compulsory notification of infectious diseases, we may confidently say that not half a dozen included measles in their original Acts. Some few authorities have, since adopting the compulsory system, secured the approval of the Local Government Board to the inclusion of measles amongst the diseases to be notified as a temporary and tentative measure. But these cases are quite exceptional.

Mr. E. Buller.—Our correspondent is far the best judge. So much depends on the amount and length of attendance, the nature of the services, previous charges, &c., of which we are not informed.

LAWN TENNIS, AND WHAT IT DID FOR ME IN 1889: FROM A HEALTH POINT OF VIEW.

To the Editors of THE LANCET.

SIRS,—When the season began in May last, a veteran aged sixty, I thought that my tennis days were nearly numbered. A walk of four or five miles tired me. Aching and burning in my great-toe joints made walking somewhat painful. I had had rheumatism in my right shoulder for months, so that I was kept awake at night; acute pain at the insertion of the right deltoid accompanied elevation of the arm, and the left shoulder was also uncomfortable. My first day's practice at tennis was disheartening. I could scarcely serve over the net (underhand). My strokes were extremely feeble, and an overhead stroke caused agony at the insertion of the deltoid. Nevertheless I persevered, and by the end of May, after several good warmings at tennis, I lost all my pains, my joints were freer, I could run about with less aching of the feet, my strokes were more severe, and I could elevate my arm for an overhead stroke without pain. After another month's practice, playing two or three times only in the week, so as not to tire the arm too much, I was fit for tournament play, and I ended the season with winning, early in September, an open veterans' singles event. The pleasant exercise and exertion of tennis, taken in moderation, not only drove away my stiffness, my threatened rheumatism, and improved my muscular system so that I could walk fifteen miles a day, or play six or eight sets of tennis in an afternoon without undue fatigue; but it cleared my mental faculties, strengthened my perceptions, gave me a better "grasp of the situation," and rendered me more alert in my ordinary work. I still look forward to the enjoyment of future seasons and coming tournaments. A game that will thus renovate a veteran is invaluable from a medical point of view. If used with discretion, it is to the busy man more available and of greater advantage to keep him in condition than cricket, football, or any other game I know, and the accidents that happen to players of lawn tennis are very few, and not of a serious character.

Consider, moreover, the mental attributes which are called into action, especially in single tennis. Wariness and close observation to note every move of an opponent, to discover his weak and his strong points; judgment and rapid decision as to our own play, especially when to "go for the stroke"; artfulness in varying one's tactics; patience and perseverance in hammering away at an opponent; self-reliance; grasp of the situation; accuracy and precision in bringing off delicate strokes;—all these qualities are one after another repeatedly called into action in a game of lawn tennis. And these same qualities applied to the pursuits of daily life go a great way to ensure success. I have noticed, especially after tournament play and its previous training, that my mental faculties, especially my perceptive power and rapidity of judgment, are very greatly increased.

Viewed thus, then, as a means whereby man's powers, bodily and mental, may be brought into and kept in the best possible condition, lawn tennis as an exercise is pre-eminently useful to those who, still in middle life, can keep up their activity; and, since both sexes can join in the game, its value is still further enhanced. I for one owe it a debt of gratitude. I am, Sirs, yours truly,

ALEXANDER WALLACE,
Colchester, Oct. 10th. Physician, Essex and Colchester Hospital.

"SEQUAH" IN MIDDLESBROUGH.

HOWEVER brilliant the achievements of quacks, they appear always pleased by the smallest testimony from anyone having what seems a regular qualification. At Middlesbrough the cures reported are marvellous, and it seems that some of the clergy are reminded by them of the "second coming of our Lord." The clergy are not always very acute in medical matters. But "Dr. Haworth" seems to vouch for the cures of "Sequah." We should like to know a little more about "Dr. Haworth's" own qualifications. Can any cures of the miraculous kind be guaranteed by two or three competent witnesses?

POISON FOR THE PICKING UP.

A PHARMACEUTICAL CONTEMPORARY, writing on the subject of the ease with which arsenic may be obtained, remarks:—"In ordinary circumstances, to obtain a poison of this character from a chemist, various formalities have to be entered into. As recent incidents have shown, there are other ways in which arsenic can be extracted. In the face of these difficulties it seems strange that in certain parts of the country arsenic can be had for the asking or the taking. It is in recent years that the mineral refuse in the Devon and Cornish mines has been worked to obtain the article which has become such a valuable material in various manufactures; in fact, the heaps of refuse previously regarded as waste have been worked over, in order to extract it, and in Cornwall, if anybody wanted to obtain arsenic for a felonious purpose, it would only be necessary to go to the nearest mine and help oneself. Going up the Tamar, for instance, one cannot help being struck with the long "flues" in which the arsenic is deposited. Some of these deposits, as at the Devon Great Consols, assume the most beautiful and eccentric shapes. It upsets this theory that the means to do ill deeds make ill deeds done when crimes in which arsenic is employed are rarely, if ever, heard of where the article is as common as coal at Newcastle."

Africanus.—Has our correspondent tried sulphur internally? For an adult a level teaspoonful of precipitated sulphur in milk may be taken twice a day. If it purges too much it may be combined with astringents. Locally, boracic acid dredged into the stockings is useful for the feet, and prevents fœtor.

Mr. Machin.—The qualifications named are not understood to carry the title "Physician."

ALBUMINURIA.

To the Editors of THE LANCET.

SIRS,—"A Pupil of the late Dr. Graves" has forgotten that albuminous urine was known long before Bright's time, and that in his day the current explanation given of it was what would be expected from the humoral pathology then dominant in medical opinion. Dr. Bright's splendid pathological and clinical observations dealt humoralism such a blow that it ultimately collapsed. But Bright's opinions met with a good deal of opposition from his contemporaries. Among others, Dr. Graves, great and wise teacher as he was, says in the lecture referred to: "*Those persons are wrong who assert that albuminous urine is the result of organic disease of the kidneys.* Albuminous urine is here, as Dr. Blackall observes, merely an indication of a peculiar inflammatory state of the whole system, and not of degeneration of the kidneys. I may observe that this is not always the case; for I could point out examples where albuminous urine is connected with an apparent opposite condition of the system—in fact, a condition demanding the use of a generous diet and tonics." The case was one of post-scarlatinal dropsy. I do not think that the passage proves anything more than that Graves refused to accept Bright's views, denounced his opinions, and clung to the exploded humoral ideas in which he had been bred. I regret that his pupil has made it necessary to show so plainly that in this respect Dr. Graves shut his eyes to the truth. We are not at all in danger of reverting nowadays to the humoral pathology of Blackall and Graves. We look at albuminuria in the light of many new facts not known to these eminent writers, and now by no means well enough known, or their meaning admitted by the general body of the profession. It was in the hope of doing something towards the better diffusion of this knowledge that the discussion at Leeds was held.

I am, Sirs, yours faithfully,
Birmingham, Oct. 12th, 1889. ROBERT SAUNDBY, M.D., F.R.C.P.

A CHEMICAL TEST FOR CHOLERA.

THE Italian pharmaceutical journal (*Giornale di Farmacia &c.*) has, according to the *Monthly Magazine of Pharmacy*, recently published a very singular note by M. Bujwid, with the title, "A Chemical Reagent for Detecting Cholera." In this note the author makes known a process for recognising the presence of the pathogenetic microbe to which cholera is attributed, and for distinguishing it from any other kind of bacterium. This is what he proposes should be done: To the culture broth, 5 to 10 per cent. of hydrochloric acid (ordinary pure laboratory acid) is added. In the course of a few minutes, he says, a violet colour will appear, and may be seen for several days. This reaction is manifested in gelatine cultures which are no more than twenty-four hours old; and, according to the author, it is perfectly characteristic of the presence of the bacillus of Asiatic cholera. As this test is very easy to apply in times of a cholera epidemic, it would be well if some of our Indian *confrères* would see if it answers in their hands. It is almost needless to state that the same test must be applied under similar conditions to other bacillus cultures, and as often as possible, before complete reliance can be placed upon it.

Mr. H. H. Taylor.—We do not think it advisable at the present juncture to insert our correspondent's letter. The proper method of bringing his views before the Commission would be by communicating with one of its members, and offering to give evidence.

AUTOMATIC MOVEMENTS OF THE HEAD AFTER STRANGULATION.

DR. KASHKAROFF has published in the *Russkaya Meditsina* an account of some observations on the automatic movements occurring in the heads of very young animals—rabbits and kittens—which have been killed by strangulation. The movements were observed in the heads after they had been severed from the trunk, and consisted in opening and shutting the mouth, movements of the tongue, sucking movements, movements of the neck, of the nostrils, and of the upper lip. These movements are not arrested by the removal of the brain if the medulla oblongata only is allowed to remain. Electrical stimulation of the medulla oblongata of an animal after decapitation causes precisely the same movements as the automatic ones above referred to. The effect of removing the cerebral hemispheres is to increase the excursions of the moving organs. The origin of these movements appears to be the want of nutrition, or so-called "asphyxia," of the medulla oblongata. The observations show that it is in this organ that the nervous centre for sucking movements must be situated.

C. K. H.—The charges made do not appear to us excessive if anything like conscientious work has been done. The small "dots" are often of great value in preventing further decay.—2. The etiquette of dental surgeons charging, or not, medical men for professional attendance is not absolutely fixed, but frequently determined by the circumstances of the individual case.

T. O.—We can hardly express an opinion on a document we have not seen; but such a document as our correspondent describes is not against public policy, and presumably, therefore, may be valid.

CONDEMNATION OF THE INDISCRIMINATE USE OF THE SO-CALLED BRONCHITIS KETTLE.

To the Editors of THE LANCET.

SIRS,—There are many evils incidental to the art of medicine, and among them not the least is the heedless manner in which any practice or treatment advocated by an able and successful man is almost universally adopted by the rank and file in the profession thereof. The steam kettle for affections of the bronchial tubes is an instance, and not the only mischievous one. How it has become so universally and blindly adopted is difficult to be comprehended by anyone who understands the rudiments of physics and has read the first chapters of physiology and of pathology. Experience and observation can have nothing to do with it; for those whose bronchial tubes and minute tissues of lungs are affected are constantly seeking for dry air and declaiming against moist fogs and a high hygrometric state of the air. The workers in manufactories which use steam or vaporised water so as to effect the breathing are ever prone to have lungs and heart affected. All intelligent medical men and other scientific observers have recognised the fact that localities with moist, warm, and still air are the least salubrious for affections of the chest, whereas the dry and movable atmosphere is the contrary. Let anyone ask a patient who sought relief for a chest affection in either Madeira, Glengariff, or Bournemouth, and contrast the answer from a poitrinaire regarding Davos Platz, Malvern, or Mallow. Let any person who believes in the steam kettle try it in his own bedroom. Why, it will upset sleep for nights. Much steam in the air actually prevents aeration of the blood by stopping osmosis. Witness the anæmic state of bleachers and those who are obliged to inhale much steam. Because in the first stage of acute inflammation of the lung tissues the capillary tubes and vesicles become dry and are relieved somewhat by a few whiffs of steam from an inhaler, then, forsooth, every stage and form of bronchitis is supposed to be benefited by inordinate steaming of the bedroom air. There can be no more misleading conclusions, and it only shows, to my mind, how much and what damage the public will submit to. I have seen the bronchitis kettle do harm. I know its use cannot be defended, except by the argument that some have not died from it; and I enter my protest against the empirical manner in which it is applied to diseases of the lungs.

I am, Sirs, yours truly,

JOHN ROCHE, M.D., D.S.Sc.,
Kingstown. Retired Indian Service.

Mr. C. H. Jones.—It is not satisfactory in an Oxford graduate to use a title not covered by his degree. "C. H. Jones, M.B., Surgeon," is not a bad description. We are assuming that our correspondent has a surgical qualification.

Ignoramus.—It is not usual. But we would refer our correspondent to our remarks on p. 676 of our impression of Sept. 28th.

Mr. Pugin Thornton.—The practice is, we think, objectionable, but is one in which we cannot very well interfere.

MEDICAL FEES AT CORONERS' COURTS.

To the Editors of THE LANCET.

SIRS,—In reply to the letter of "X. Y. Z." in your issue of Oct. 5th, I must say that I cannot understand why there should be any doubt. The assistant is paid by the principal for his services, and, unless there be any agreement to the contrary, all fees earned by the assistant naturally become the property of the principal. The former is working for him, and for him alone, and he obtains a *quid pro quo*.

I am, Sirs, yours faithfully,

Oct. 9th, 1889. JUSTITIA.

ARMY SURGERY IN ITALY.

T.N.—Italians possess an excellent practical work on the science and art of surgery on its military side in the "Manuale di Chirurgia di Guerra" of Dr. Isaac Segré, which, despite its unpretending title, is really an exhaustive treatise, numbering some 600 pages, and provided with admirably executed plates, plans, and drawings illustrative of the text. Brief but comprehensive and clear instructions as to the conduct of the army surgeon in camp or in quarters, in the campaign or on the field of battle, in hospital, or under fire, make up the body of the work—all of them drawn from the best sources, and checked by personal experience. It is now in its second edition (Morano, Naples, 1889), and has attracted the favourable notice of the Italian War Office.

PERINEAL PRESSURE IN CYCLING.

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent, Mr. J. W. Waring, M.B., once more calls up the question of perineal pressure in cycling. In THE LANCET of September, 1884, I called attention to the evils which were, in my estimation, likely to arise from perineal pressure *in the young* if the then prevalent custom of straddling the largest wheel possible were persisted in. Since that time I have heard of several cases of perineal abscess, more than one of stricture, and lately of one case of acute urethritis, which were attributed to injury or irritation caused by the bicycle saddle. But since 1884 a very great change has taken place in cycling, and now, instead of the enormous wheel, the largest that the rider could possibly stretch his leg to form a radius of, we have the small-wheeled "Safety," in which the position of the rider much more nearly approaches that of sitting than standing—as was the case when the large wheel was used—and where much of the weight of the body is supported, as nature intended it should be, upon the ischial tuberosities. Yet notwithstanding this improvement in position of the rider, together with the modern saddle, broad behind, and forming a triangle of soft leather in place of the hard, narrow, horn-shaped saddle of old, which fitted close against the perineum instead of jamming between the adductors of the thighs, as the soft modern saddle does—I say, notwithstanding all these improvements in both bicycle and saddle, a certain amount of pressure is still put upon the perineum in cycling; but that it is sufficient, bar accidents, to cause injury to the healthy subject I am not in a position to admit. I think there can be little doubt that this perineal pressure tends to aggravate the prostatic troubles from which, perhaps, most male cyclists of over sixty years of age suffer; but it is an open question whether the great improvement in general health gained by such cyclists does not more than counterbalance any local irritation so produced. Cycling, as practised in 1884, if persisted in immoderately, must have proved injurious to the young; cycling, as practised in 1889, if indulged in in moderation, may come as nearly to the "unmixed blessing" as any outdoor sport common in this country.

I am, Sirs, yours faithfully,

Oct. 12th, 1889. S. A. K. STRAHAN, M.D., Barrister-at-Law.

PRACTICE IN CAPE TOWN.

M.D. would be glad of information as to the prospect of practice in Cape Town; also condition of climate and other particulars regarding the colony.

ERRATA.—In the notice given last week by our correspondent of M. Chassaing's pepsin at the Paris Exhibition the name was erroneously printed "Chaissaing."—In the letter of "A Pupil of the late Dr. Graves" on Albuminuria (p. 776, twelfth line), for "Bright's kidney with albuminous urine," read "Bright's kidney *without* albuminous urine."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Barlow, London; Dr. Dickinson, London; Dr. Mott, London; Sir J. Sawyer, Birmingham; M. Patrouillard, Gisors; Dr. Dockrell, London; Dr. T. Oliver, Newcastle; Dr. Crooke, Birmingham; Messrs. Chassaing and Co., Paris; Dr. Grose, Melksham; Messrs. Cadbury; Dr. Hardwicke, Dovercourt; Dr. Saundby, Birmingham; Dr. Strahan; Mr. N. E. Davies, Sherborne; Mr. J. T. Taylor, London; Mr. C. H. Jones; Dr. Wallace, Colchester; Dr. J. E. Pollock, London; Messrs. Dakin Brothers, London; Dr. Auld, Glasgow; Dr. Spender, Bath; Dr. John Brown, Glasgow; Mr. H. A. Baber, Harlesden; Messrs. Masters and Son, London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. L. de Havilland, Neuvaldegg; Dr. D. R. Paterson, Cardiff; Mr. Edmund Owen, London; Mr. W. T. Ord, Halesowen; Mr. J. R. Upton, London; Mr. G. Wherry, Cambridge; Mr. Nicholls, Tylehurst; Mr. Pugin Thornton, Canterbury; Dr. Railton, Manchester; Dr. Bourke, Cape Colony; Mr. Glegg, Edinburgh; Dr. Porter, Sheffield; Dr. Fletcher Beach, Dartford; Mr. Barling, Stoke-on-Trent; Dr. T. W. E. Green, London; Mr. M. Harding, Hampstead; Mr. A. E. Nevius, London; Mr. C. F. L. Dixon; Dr. F. Pearse, Southsea; Mr. F. E. Cane, Liverpool; Dr. O'Neill, Belfast; Mr. Blackett, London; Mr. Emmerson, Biggleswade; Mr. Morton, Glasgow; Dr. Gibbon, London; Dr. Wallace Anderson, Glasgow; Dr. Gairdner, Glasgow; Dr. Phillips, Virginia Waters; Mr. Manton, Sheffield; Mr. Frost, London; Messrs. Reed and Co., Bridgwater; Mr. Milnes, Hampstead; Mr. Jeanne, Crouch End; Dr. Paterson, Roverby; Mr. Tinker, Ipswich; Messrs. Dahl, London; Mr. Goldberger, Budapest; Mr. Fraser, Dublin; M. Berthier,

Paris; Dr. McKearn, Belfast; Mr. Sacker, London; Miss Ungent, Cookstown; Mr. Nicson, Bournemouth; Dr. Rochfort, Parsonstown; Mr. Birchall, Liverpool; Mr. Russell, Liverpool; Mr. Branthwaite, Worcestershire; Mr. Pant, India; Mr. Feeny, Ballina; Mr. Barlow, Birmingham; Dr. Williams, Ventnor; Dr. J. Oliver, London; Dr. F. Taylor, London; Mr. Macpherson, Middlesbro'; Mr. Boyce, Shrewsbury; Mr. Norris, Weston-super-Mare; Mr. Browning, Manchester; Mr. Ford, Devonport; Dr. Adams, Warrington; Mr. Trestrail, Aldershot; Dr. De Lepine, Lyons; Mr. Burwell, Derby; Messrs. Grace, Bristol; Mr. Vickers, London; M. Pouget, London; Dr. C. Beale, London; Mr. G. W. Hambleton, London; Messrs. Maclachlan and Co., Edinburgh; Mr. Blakely, Bexley Heath; Messrs. Blondeau et Cie., Kentish-town; Mr. H. Cripps, London; Mr. Bilton Pollard; Justitia; Africanus; F.R.C.P.; Ignoramus; Publisher, *Chemist and Druggist*, London; C. K. H.; Cyclops; Matron, Kent and Canterbury Hospital; X. Y. Z., London; Phenol, London; Secretary, Norfolk Hospital; S. P. Q. R., London; Beta, London; Matron, Stockport Infirmary; Medicus, Burton-on-Trent; Forceps, London; Maltine Co., Bloomsbury; Physician, Finsbury-circus; Secretary, University College, Liverpool; A., London; Optics, London; Medical Transfer Bureau, Manchester; M.D.; J. W. W.; T. O.; S. E., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Smith, Durham; Dr. Wright, Bath; Mr. Cropley, Foulkingham; Mr. Evans, Llangollen; Mr. Corbett, Kingston-on-Thames; Messrs. Oppenheimer and Co., London; Mr. Maberly, Ventnor; Mr. Cuthbertson, Rhondda Valley; Mr. Tully, Hastings; Dr. Boyd, Hamburg; Mr. Pode, Ivy Bridge; Mr. Harrison, Norfolk; Mr. Thompson, Bath; Dr. Walker, Cardiff; Dr. Honeywill, Bildeston; Mr. Bigg, London; Mr. Bransby, Melbourne; Mr. Hindle, Loughborough; Mr. Browning, Islington; Mr. Denby, Halifax; Mr. Crickmay, Suffolk; Miss Fleming, Ambleside; Mr. Digan, Grimsby; Dr. Williamson, Ventnor; Mr. Hughes, Hansworth; Mr. Todd, Carlisle; Mr. Eadie, Ireland; Mr. Oliphant, Chester; Mr. Smith, co. Down; Mr. Torrington, Bath; Mr. Turner, Mexborough; Dr. Palmer, Stroud; Mr. Walker, Redcar; Dr. Adam, West Malling; Mr. Bartlett, Cullompton; Mr. Craik, Stoke-on-Trent; Dr. Woakes, London; Dr. Redwood, Cardiff; Mr. Jackson, Bradford; Mr. Lumb, Grimsby; Dr. Mandevila, India; Mr. Skinner, Rye; Mr. Linnill, Towcester; Mr. Collins, London; Mr. Gilford, Surrey; Mr. Snow, London; Mr. Huberty, Brighton; Mrs. Jagger, Morton; Mr. Sarjant, Worcester; Mr. Anderson, York; Mr. John, Cardiff; Dr. Tinley, Whitby; Dr. Hicks, Hendon; Messrs. Chester and Co., Birmingham; Mr. Walters, Carmarthen; Mrs. Thompson, Bourton; Mr. Hamilton, Bradford; Mr. Heywood, Manchester; Mrs. Hitch, Hollington; Mr. Skinner, Somerset; Mr. Martin, Birkenhead; Mr. Campbell, London; Mr. Reece, Swansea; Mr. Simpson, Norwich; Dr. Brereton, Salop; Mr. Beale, London; Mr. Porteous, Glasgow; Mr. Hawkins, Banbury; Mr. Capel, London; Mr. Dunlop, Southampton; Garthwaite, Market Drayton; Nemo, Essex; N., Govan; J. G., London; Nucleus, London; M.D., &c., London; Secretary, West Herts Infirmary; E. S. S., London; X. Y. Z., Teddington; Hackney Furnishing Co., London; Medicus, Liverpool; Secretary, Cheltenham General Hospital; Medicus, Hants; Medicus, Bradford; Lady Superintendent, Maidstone; Pedes, London; G. T., Preston; M.D., London; X., London; M. H. O., London; Nucleus, London; Cantab., London; S. A. M., London; Scotia, London; Ambrose, London; A. B. C., London; Coach, London; Physician, London; P., Stoke Newington; Cicero, London; M.B., Bristol; R., Bristol; Agricola, London; Chirurgicus, London; A., London; Beta, London; Sure, London; Miss L., London; Domus, London; E., Surrey; Dr. M., Burton-on-Trent; Beta, Victoria-park; H. A., London; Medicus, West Bromwich; Aston, London; R. C., London; G. T. C., London.

Bury and Norwich Post, Western Mail, Hertfordshire Mercury, Farming World, Weekly Free Press and Aberdeen Herald, Singapore Free Press, Farm and Home, Reading Mercury, Lincolnshire, Boston, and Spalding Free Press, Mining Journal, Shields Daily News, Surrey Advertiser, Pendleton, Salford, Broughton Reporter, Derby Express, The Inquirer, Polytechnic Magazine, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. The President's Opening Address.—Sir Andrew Clark, Bart., F.R.S.: On the Non-tubercular Hæmoptysis of Elderly Life.

Tuesday, October 22.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY (at the Society's New House, 20, Hanover-square).—8.30 P.M. Address by the President (Sir Edward Sieveking, M.D.).—Dr. Thomas Oliver (Newcastle-on-Tyne): The Analytical and Clinical Examination of Lead Poisoning in its Acute Manifestations.—Mr. J. Bland Sutton: A case of Ruptured Tubal Pregnancy, with remarks on the Cause of Early Rupture.

Wednesday, October 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
HUNTERIAN SOCIETY.—8 P.M. Mr. F. R. Humphreys: On the Clinical Estimation of the Colouring Matter in the Urine.

Thursday, October 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, October 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—8.30 P.M. Mr. Mayo Robson: Case of Cholecystotomy.—Mr. W. Rivington: Case of Potts' Fracture, with Fracture and Displacement of the Astragalus, followed by Symptoms of Tetanus, which subsided after Removal of the Displaced Fragment.—Mr. W. G. Spencer: Case of Recent Dislocation Backwards at the Elbow of both Bones of the Forearm, irreducible from the Lower End of the Humerus, being held like a Button by a Rent in the Anterior Ligament.

Saturday, October 26.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months..... £0 16 3
TO CHINA AND INDIA .....One Year 1 16 10
TO THE CONTINENT, COLONIES, AND UNITED STATES..... Ditto 1 14 8

Post Office Orders and Cheques should be addressed to The Publisher, THE LANCET Office, 423, Strand, London, and crossed "London and Westminster Bank, St. James's-square."

ADVERTISING.

Books and Publications (seven lines and under) ..	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Every additional Line	0 0 6
Front Page .. .. per Line	0 1
Quarter Page	1 10 0
Half a Page	2 15 0
An Entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.